

# **Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2004**

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*This Technical Report does not necessarily represent final EPA decisions or positions.  
It is intended to present technical analysis of issues using data that are currently available.*

*The purpose in the release of such reports is to facilitate an exchange of  
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## **For More Information**

*Light-Duty Automotive Technology and Fuel Economy Trends: 1975 through 2004* (EPA420-R-04-001) is available electronically on the Office of Transportation and Air Quality's (OTAQ) Web site at:

<http://www.epa.gov/otaq/fetrends.htm>

Printed copies are available from the OTAQ library at:

U.S. Environmental Protection Agency  
Office of Transportation and Air Quality Library  
2000 Traverwood Drive  
Ann Arbor, MI 48105  
(734) 214-4311

A copy of the *Fuel Economy Guide* giving city and highway fuel economy data for individual models is available at

<http://www.fueleconomy.gov>

or by calling the U.S. Department of Energy's National Alternative Fuels Hotline at (800) 423-1363.

EPA's *Green Vehicle Guide* provides information about the air pollution emissions and fuel economy performance of individual models is available on EPA's web site at

<http://www.epa.gov/greenvehicles/>

For information about the Department of Transportation (DOT) Corporate Average Fuel Economy (CAFE) program, including a program overview, related rulemaking activities, research, and summaries of individual manufacturers' fuel economy performance since 1978, see:

<http://www.nhtsa.dot.gov/cars/rules/cape/index.htm>

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## **I. Executive Summary**

### **Introduction**

This report summarizes key fuel economy and technology usage trends related to model year 1975 through 2004 light-duty vehicles sold in the United States. Light-duty vehicles are those vehicles that EPA classifies as cars or light-duty trucks (sport utility vehicles, vans, and pickup trucks with less than 8,500 pounds gross vehicle weight ratings).

Model year 2004 light-duty vehicles are estimated to average 20.8 miles per gallon (MPG). The MY2004 average is within the 20.6 to 20.9 mpg range that has occurred for the past eight years, but six percent below the 1987-88 peak of 22.1 MPG

Since 1975, the fuel economy of the combined car and light truck fleet has moved through four phases:

1. a rapid increase from 1975 continuing to the mid-1980s,
2. a slow increase extending into the late 1980s,
3. a gradual decline from then until the late 1990s, and
4. a period of relatively constant fuel economy since then.

The fuel economy values in this report are based on 'real world' estimates provided by the Federal government to consumers and are about 15 percent lower than the fuel economy values used by manufacturers and the Department of Transportation (DOT) for compliance with the Corporate Average Fuel Economy (CAFE) program.

For model year 2004, light trucks are projected to account for 48 percent of all light-duty vehicles. After over two decades of steady growth, the market share for light trucks has been about half of the overall light-duty vehicle market since 2002. Most of this growth in the light truck market has been led by the increase in the popularity of sport utility vehicles (SUVs), which now account for more than one fourth of all new light-duty vehicles.

Model year 2004 light-duty vehicles are estimated to be heavier and more powerful than in 2003. This continues a twenty-plus year trend of increasing vehicle weight and power due to ongoing technological innovations commercialized by vehicle manufacturers in response to consumer demands.

## **Importance of Fuel Economy**

Fuel economy continues to be a major area of public and policy interest for several reasons, including:

1. Fuel economy is directly related to energy security because light-duty vehicles account for approximately 40 percent of all U.S. oil consumption and much of this oil is imported.
2. Fuel economy is directly related to the cost of fueling a vehicle and is of great interest when oil and gasoline prices rise.
3. Fuel economy is directly related to emissions of greenhouse gases such as carbon dioxide. Light-duty vehicles contribute about 20 percent of all U.S. carbon dioxide emissions.

### **Characteristics of Light-Duty Vehicles for Three Model Years**

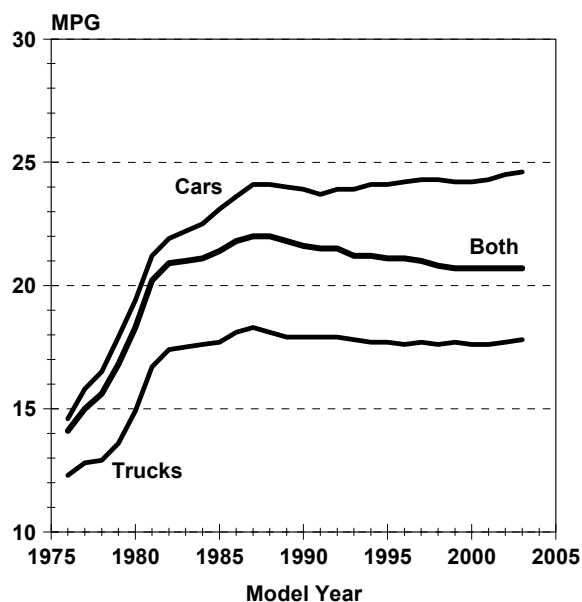
	<b>1975</b>	<b>1987</b>	<b>2004</b>
<b>Adjusted Fuel Economy</b>	13.1	22.1	20.8
<b>Weight (lbs)</b>	4060	3220	4066
<b>Horsepower</b>	137	118	208
<b>0 to 60 Time (sec)</b>	14.1	13.1	10.0
<b>Percent Truck</b>	19%	28%	48%

# Highlight #1: Fuel Economy Has Been Relatively Constant For Several Years.

*After a decade of decline from 1988 to 1997, fuel economy has been constant for several years. The average fuel economy for all model year 2004 light-duty vehicles is estimated to be 20.8 MPG - 6 percent lower than the peak value of 22.1 MPG achieved in 1987-88. Average model year 2004 fuel economy is 24.6 MPG for cars and 17.9 MPG for light trucks.*

Since 1975, the fuel economy of the combined car and light truck fleet has moved through several phases: (1) a rapid increase from 1975 to the mid-1980s, (2) a slow increase extending into the late 1980s, (3) a decline from the peak in the late 1980s, and (4) since then a period of relatively constant overall fleet fuel economy. Viewing new cars and trucks separately, the three-year moving average fuel economy for cars has increased 1.0 MPG since 1991, but that for trucks has been relatively constant.

**Adjusted Fuel Economy by Model Year  
(Three-Year Moving Average)**



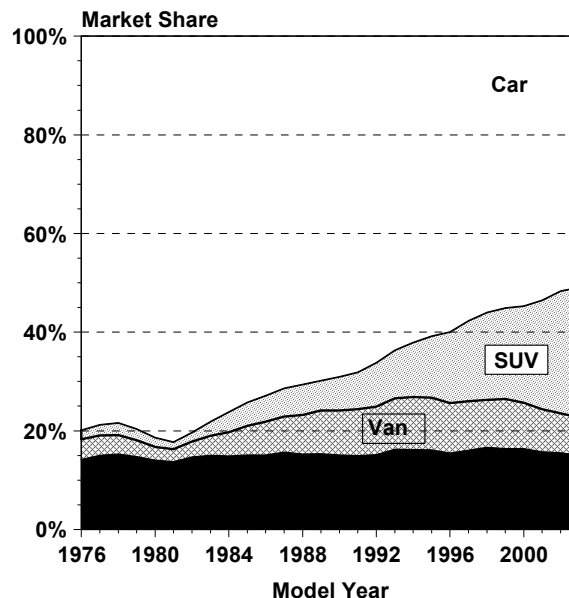


## Highlight #2: Trucks Represent About Half of New Vehicle Sales.

*Sales of light trucks, which include sport utility vehicles (SUVs), vans, and pickup trucks are now projected to make up 48 percent of the U.S. light-duty vehicle market -- more than twice their market share in 1984.*

Growth in the light truck market has been led recently by the increase in the market share of SUVs. The SUV market share increased by more than a factor of ten, from less than two percent of the overall new light-duty vehicle market in 1975, to over 25 percent of the market now. Over the same period, the market share for vans increased by about three percent, while that for pickups remained relatively constant. Between 1975 and 2004, market share for new passenger cars and station wagons decreased from 81 to 52 percent. For model year 2004, cars are estimated to average 24.6 MPG, vans 20.0 MPG, SUVs 17.9 MPG, and pickups 17.0 MPG. The increased market share of light trucks, which in recent years have averaged more than six MPG less than cars, accounted for much of the decline in fuel economy of the overall new light-duty vehicle fleet from 1988 to 1997.

**Sales Fraction by Vehicle Type**  
(Three-Year Moving Average)



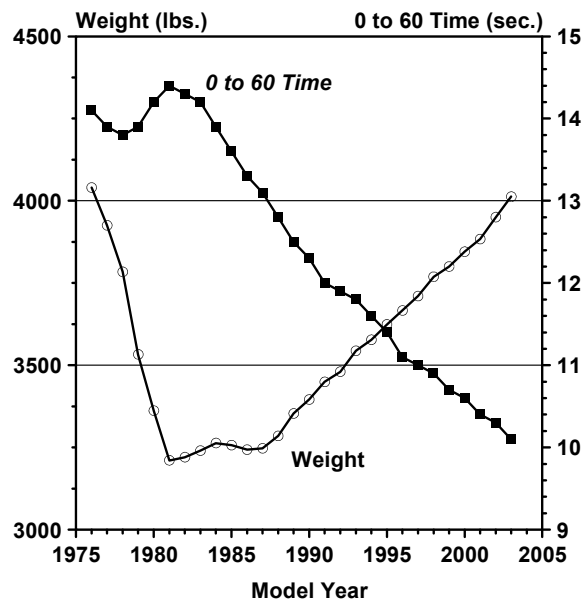
**Highlight #3: As a Result of Technological Innovation, Vehicle Weight Has Increased and Performance Has Improved While Fuel Economy Has Remained Constant.**

*Manufacturers continue to apply technological innovations to the new light-duty vehicle fleet to increase light-duty vehicle weight and acceleration performance in response to consumer demands. EPA estimates that had the new 2004 light-duty vehicle fleet had the same distribution of performance and the same distribution of weight as in 1987, it could have achieved about 20 percent higher fuel economy.*

Technologies—such as engines with more valves and more sophisticated fuel injection systems, and transmissions with lockup torque convertors and extra gears—continue to penetrate the new light-duty vehicle fleet. The trend has clearly been to apply these new technologies to accommodate increases in average new vehicle weight, power, and performance while maintaining a constant level of fuel economy. This is reflected by heavier average vehicle weight, rising average horsepower, and faster average 0 to 60 mile-per-hour acceleration time.

**Weight and Performance**

(Three Year Moving Average)



## **Important Notes With Respect to the Data Used in This Report**

Unless otherwise indicated, the fuel economy values in this report are based on laboratory data and have been adjusted downward by about 15 percent, so that this data is equivalent to the real world estimates provided to consumers on new vehicle labels, in the EPA/DOE *Fuel Economy Guide*, and in EPA's *Green Vehicle Guide*. These adjusted fuel economy values are significantly lower than those used for compliance with CAFE standards as, in addition to the 15 percent downward adjustment for real world driving, they also exclude credits for alternative fuel capability and test procedure changes that are included in the CAFE data reported by the DOT.

The data presented in this report were tabulated on a model year basis, but several of the figures in this report use three-year moving averages which effectively smooth the trends, and these three-year moving averages are tabulated at their midpoint. For example, the midpoint for model years 2002, 2003, and 2004 is model year 2003. All average fuel economy values were calculated using harmonic, rather than arithmetic averaging.

The source database used to generate the tables and graphs in this report for all years, other than MY2003, was frozen in October 2003. When comparing data in this report with those in previous reports in this series, please note that revisions are made in the data for some recent model years for which more complete and accurate sales and fuel economy have become available.

Through model year 2002, the fuel economy, vehicle characteristics, and sales data used for this report were obtained from the most complete databases used for CAFE standards and "gas guzzler" compliance purposes.

Where available, the model year 2003 data in this report is based on CAFE compliance data submitted to EPA by March 31, 2004. For those MY2003 cases for which compliance data was yet not available, EPA used data that included confidential sales projections submitted to the Agency by the automotive manufacturers, but updated the sales data to take into account information reported in trade publications.

For model year 2004, EPA has exclusively used confidential projected sales data that the auto companies are required to submit to the Agency.

Over the last five years, the final fuel economy values have varied from 0.1 mpg lower to 0.3 mpg higher compared to the original estimates based exclusively on projected sales.

## II. General Car and Truck Trends

The figures and tables in this report provide fuel economy data using two different approaches: the "laboratory" based or "unadjusted" values which have been used in many previous reports in this series and "adjusted" MPG values which are based on the adjustments made to the laboratory fuel economy values for the fuel economy information programs: the *Fuel Economy Guide*, new vehicle fuel economy labels, and the *Green Vehicle Guide*. The adjusted city MPG value is 0.90 times the laboratory city MPG value, and the adjusted highway MPG value is 0.78 times the laboratory MPG value. As described in the appendixes, these city and highway values are combined to form a composite 55/45 combined city/highway MPG. For a typical vehicle, the adjusted 55/45 MPG is about 15 percent less than the laboratory 55/45 MPG. Presenting both types of MPG values facilitates the use of this report by those who study either type of fuel economy metric.

In this report, "ton-MPG" is defined as a vehicle's adjusted MPG multiplied by its inertia weight in tons. This metric provides an indication of a vehicle's ability to move weight (i.e., its own plus a nominal payload). Ton-MPG is a measure of powertrain/drive-line efficiency. Just as an increase in vehicle MPG at constant weight can be considered an improvement in a vehicle's efficiency, an increase in a vehicle's weight-carrying capacity at constant MPG can also be considered an improvement. Appendix A contains a further description of the database and calculation methods used in this report.

The fuel economy databases that EPA uses for this report and other purposes are based on the consumer information and regulatory databases maintained by the Agency. For a given model year, these databases change with calendar time as the initial MPG values and sales projections available in the Fall of the year evolve toward final and more complete MPG data and actual production data. This calendar time-based process can take more than one year to complete and during this time, the database is changing. Therefore, the results for model years 2003 and 2004 that are obtained from using the database are estimates that depend on when the analysis is done.

Figure 1 and Table 1 depict time trends in car, light truck, and car-plus-light truck fuel economy. Also shown on Figure 1 is the fraction of the combined fleet that are light trucks and trend lines representing three-year moving averages of the fuel economy and truck sales fraction data.

Use of the three-year moving averages, which effectively smooth the trends, results in an improvement in discerning real trends from what might be relatively small year-to-year variations in the data. As shown in Table A-2 (see Appendix A), the three-year moving averages used in this report are tabulated and plotted at their midpoint. For example, the midpoint for model years 2002, 2003, and 2004 is model year 2003.

Since 1975, the fuel economy of the combined car and light truck fleet has moved through several phases:

1. a rapid increase from 1975 continuing into the mid-1980s,
2. a slow increase extending into the late 1980s,
3. a gradual decline from then until the late 1990s, and
4. a period of relatively constant fuel economy since then.

This fourth phase is characterized by three-year moving average MPG levels within 0.1 MPG of 24.3 MPG for laboratory fuel economy for six years. This 24.3 MPG value is 1.5 MPG (5.8%) lower than the highest year's (1987) three-year moving average value and 7.8 MPG (47%) higher than the earliest three-year moving average value, that for 1976.

Trends in the three-year moving average for car fuel economy have been like those for the overall fleet except car fuel economy has tended upward slightly for the last few years and is now higher than the previous peak for cars shown in the late 1990s.

Light truck fuel economy has been within 0.1 MPG of 20.7 for the last 10 years, based on three-year moving averages. This flat light truck fuel economy trend, accompanied by the increasing truck share of the market, has offset the recent upward trend in car fuel economy and has resulted in the recent flat trend in overall fleet fuel economy discussed above.

Figure 1 shows that the estimated light truck share of the market is about 48 percent and, based on the three-year moving average trend, has not yet leveled off. Table 2 shows some of the characteristics of each year's fleet. At 4066 lb, the average weight of the model year 2004 fleet is 45 lb heavier than last year's, 865 lb heavier than it was at the minimum in 1981-82, and the second heaviest since 1975. The model year 2004 fleet is also the most powerful and estimated to be the fastest since 1975.

# Laboratory Fuel Economy and Percent Truck by Model Year

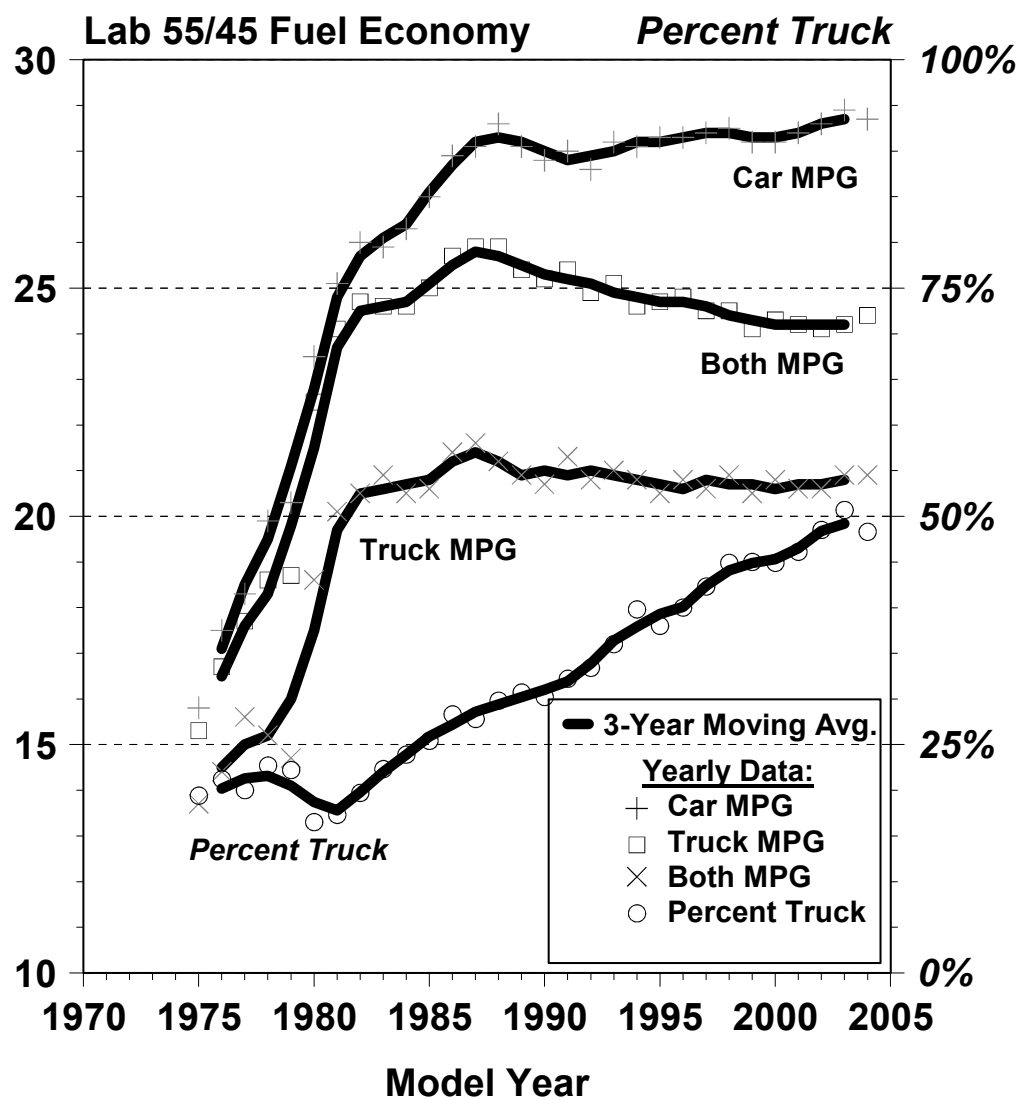


Figure 1

Table 1

**Fuel Economy Characteristics of 1975 to 2004 Light-Duty Vehicles**

<b>Cars</b>									
MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	8237	0.806	15.8	12.3	15.2	13.5	27.6		
1976	9722	0.788	17.5	13.7	16.6	14.9	30.2		
1977	11300	0.800	18.3	14.4	17.4	15.6	31.0	1780	3423
1978	11175	0.773	19.9	15.5	19.1	16.9	30.6	1908	3345
1979	10794	0.778	20.3	15.9	19.2	17.2	30.2	1922	3301
1980	9443	0.835	23.5	18.3	22.6	20.0	31.2	2136	3273
1981	8733	0.827	25.1	19.6	24.2	21.4	33.1	2338	3547
1982	7819	0.803	26.0	20.1	25.5	22.2	34.2	2419	3645
1983	8002	0.777	25.9	19.9	25.5	22.1	34.7	2476	3776
1984	10675	0.761	26.3	20.2	26.0	22.4	35.1	2482	3776
1985	10791	0.746	27.0	20.7	26.8	23.0	35.8	2551	3881
1986	11015	0.717	27.9	21.3	27.7	23.8	36.4	2608	3914
1987	10731	0.722	28.1	21.5	28.0	24.0	36.5	2604	3900
1988	10736	0.702	28.6	21.8	28.5	24.4	37.3	2662	4007
1989	10018	0.693	28.1	21.4	28.3	24.0	37.4	2630	4034
1990	8810	0.698	27.8	21.1	28.1	23.7	37.8	2574	4055
1991	8524	0.678	28.0	21.2	28.3	23.9	37.8	2597	4055
1992	8108	0.666	27.6	20.8	28.3	23.6	38.4	2598	4169
1993	8457	0.640	28.2	21.3	28.8	24.1	38.8	2655	4214
1994	8414	0.602	28.1	21.1	28.8	24.0	39.1	2638	4237
1995	9396	0.620	28.3	21.2	29.3	24.2	39.6	2676	4315
1996	7890	0.600	28.3	21.2	29.3	24.2	39.8	2671	4342
1997	8343	0.577	28.4	21.3	29.4	24.3	39.9	2674	4341
1998	7971	0.551	28.5	21.3	29.6	24.4	40.5	2684	4401
1999	8379	0.550	28.2	21.1	29.2	24.1	40.6	2656	4440
2000	9128	0.551	28.2	21.1	29.1	24.1	40.7	2542	4244
2001	8408	0.539	28.4	21.4	29.3	24.3	41.4	2700	4525
2002	8302	0.515	28.6	21.6	29.3	24.5	41.8	2723	4579
2003	7705	0.493	28.9	21.8	29.7	24.7	42.8	2741	4664
2004	8579	0.517	28.7	21.6	29.6	24.6	42.9	2766	4743

Table 1, Continued

**Fuel Economy Characteristics of 1975 to 2004 Light-Duty Vehicles**

<b>Trucks</b>							
MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	TON -MPG
1975	1987	0.194	13.7	10.9	12.7	11.6	24.2
1976	2612	0.212	14.4	11.5	13.2	12.2	26.0
1977	2823	0.200	15.6	12.6	14.1	13.3	28.0
1978	3273	0.227	15.2	12.4	13.7	12.9	27.5
1979	3088	0.222	14.7	12.1	13.1	12.5	27.3
1980	1863	0.165	18.6	14.8	17.1	15.8	30.9
1981	1821	0.173	20.1	16.0	18.6	17.1	33.0
1982	1914	0.197	20.5	16.3	19.0	17.4	33.7
1983	2300	0.223	20.9	16.5	19.6	17.8	34.0
1984	3345	0.239	20.5	16.1	19.3	17.4	33.5
1985	3669	0.254	20.6	16.2	19.4	17.5	33.7
1986	4350	0.283	21.4	16.9	20.2	18.3	34.4
1987	4134	0.278	21.6	16.9	20.7	18.4	34.5
1988	4559	0.298	21.2	16.5	20.4	18.1	34.9
1989	4435	0.307	20.9	16.3	20.1	17.8	35.2
1990	3805	0.302	20.7	16.1	20.2	17.7	35.6
1991	4049	0.322	21.3	16.4	20.7	18.1	36.0
1992	4064	0.334	20.8	16.1	20.4	17.8	36.2
1993	4754	0.360	21.0	16.1	20.7	17.9	36.6
1994	5572	0.398	20.8	16.0	20.4	17.7	36.7
1995	5749	0.380	20.5	15.8	20.2	17.5	36.9
1996	5254	0.400	20.8	16.0	20.7	17.8	37.8
1997	6124	0.423	20.6	15.8	20.4	17.6	38.3
1998	6485	0.449	20.9	16.0	20.8	17.8	38.3
1999	6854	0.450	20.5	15.7	20.3	17.5	38.6
2000	7447	0.449	20.8	16.0	20.5	17.7	38.9
2001	7189	0.461	20.6	15.9	20.2	17.6	39.3
2002	7804	0.485	20.6	15.8	20.3	17.6	40.0
2003	7917	0.507	20.9	16.0	20.7	17.8	41.0
2004	8023	0.483	20.9	16.0	20.8	17.9	42.1



Table 1, Continued

**Fuel Economy Characteristics of 1975 to 2004****Cars and Trucks**

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ECONOMY ADJ CITY	ADJ HWY	----> ADJ 55/45	TON -MPG
1975	10224	1.000	15.3	12.0	14.6	13.1	26.9
1976	12334	1.000	16.7	13.2	15.7	14.2	29.3
1977	14123	1.000	17.7	14.0	16.6	15.1	30.4
1978	14448	1.000	18.6	14.7	17.5	15.8	29.9
1979	13882	1.000	18.7	14.9	17.4	15.9	29.5
1980	11306	1.000	22.5	17.6	21.5	19.2	31.2
1981	10554	1.000	24.1	18.8	23.0	20.5	33.1
1982	9732	1.000	24.7	19.2	23.9	21.1	34.1
1983	10302	1.000	24.6	19.0	23.9	21.0	34.5
1984	14020	1.000	24.6	19.1	24.0	21.0	34.7
1985	14460	1.000	25.0	19.3	24.4	21.3	35.3
1986	15365	1.000	25.7	19.9	25.1	21.9	35.8
1987	14865	1.000	25.9	20.0	25.5	22.1	35.9
1988	15295	1.000	25.9	19.9	25.5	22.1	36.6
1989	14453	1.000	25.4	19.5	25.2	21.7	36.7
1990	12615	1.000	25.2	19.3	25.1	21.5	37.1
1991	12573	1.000	25.4	19.4	25.3	21.7	37.2
1992	12172	1.000	24.9	18.9	25.0	21.3	37.6
1993	13211	1.000	25.1	19.1	25.2	21.4	38.0
1994	13986	1.000	24.6	18.7	24.7	21.0	38.2
1995	15145	1.000	24.7	18.8	25.0	21.1	38.6
1996	13144	1.000	24.8	18.7	25.1	21.2	39.0
1997	14467	1.000	24.5	18.6	24.8	20.9	39.2
1998	14457	1.000	24.5	18.5	24.9	20.9	39.5
1999	15233	1.000	24.1	18.3	24.4	20.6	39.7
2000	16574	1.000	24.3	18.4	24.5	20.7	39.9
2001	15598	1.000	24.2	18.4	24.3	20.7	40.4
2002	16106	1.000	24.1	18.3	24.1	20.6	40.9
2003	15623	1.000	24.2	18.4	24.3	20.7	41.9
2004	16602	1.000	24.4	18.5	24.6	20.8	42.5

Table 2

**Vehicles Size and Design Characteristics of 1975 to 2004 Cars**

&lt;----- MEASURED CHARACTERISTICS -----&gt; &lt;- PERCENT BY: -&gt;

MODEL YEAR	SALES (000)	FRAC	ADJ	INERTIA		ENG HP	HP/ WT	0-60 TIME	TOP SPD	VEHICLE SIZE		
			55/45 MPG	VOL CU-FT	WGHT LB					SMALL	MID	LARGE
1975	8237	0.806	13.5		4057	136	0.0331	14.2	111	55.4	23.3	21.3
1976	9722	0.788	14.9		4058	134	0.0324	14.4	110	55.4	25.2	19.4
1977	11300	0.800	15.6	110	3943	133	0.0335	14.0	111	51.9	24.5	23.5
1978	11175	0.773	16.9	109	3587	124	0.0342	13.7	111	44.7	34.4	21.0
1979	10794	0.778	17.2	108	3484	119	0.0338	13.8	110	43.7	34.2	22.1
1980	9443	0.835	20.0	104	3101	100	0.0322	14.3	107	54.4	34.4	11.3
1981	8733	0.827	21.4	106	3075	99	0.0320	14.4	106	51.5	36.4	12.2
1982	7819	0.803	22.2	106	3054	99	0.0320	14.4	106	56.5	31.0	12.5
1983	8002	0.777	22.1	108	3111	104	0.0330	14.0	108	53.1	31.8	15.1
1984	10675	0.761	22.4	107	3098	106	0.0339	13.8	109	57.4	29.4	13.2
1985	10791	0.746	23.0	108	3092	111	0.0355	13.3	111	55.7	28.9	15.4
1986	11015	0.717	23.8	107	3040	111	0.0360	13.2	111	59.5	27.9	12.6
1987	10731	0.722	24.0	106	3030	112	0.0365	13.0	112	63.5	24.3	12.2
1988	10736	0.702	24.4	107	3046	116	0.0375	12.8	113	64.8	22.3	12.8
1989	10018	0.693	24.0	107	3099	121	0.0387	12.5	115	58.3	28.2	13.5
1990	8810	0.698	23.7	107	3175	129	0.0401	12.1	117	58.6	28.7	12.8
1991	8524	0.678	23.9	106	3153	132	0.0413	11.8	118	61.5	26.2	12.3
1992	8108	0.666	23.6	108	3239	141	0.0428	11.5	120	56.5	27.8	15.6
1993	8457	0.640	24.1	108	3207	138	0.0425	11.6	120	57.2	29.5	13.3
1994	8414	0.602	24.0	108	3249	143	0.0432	11.4	121	58.5	26.1	15.4
1995	9396	0.620	24.2	108	3262	152	0.0460	10.9	125	57.3	28.6	14.0
1996	7890	0.600	24.2	108	3281	154	0.0464	10.8	125	54.3	32.0	13.6
1997	8343	0.577	24.3	108	3273	156	0.0469	10.7	126	55.1	30.6	14.3
1998	7971	0.551	24.4	108	3306	159	0.0475	10.6	127	49.4	39.1	11.5
1999	8379	0.550	24.1	109	3364	164	0.0481	10.5	128	47.7	39.7	12.6
2000	9128	0.551	24.1	103	3369	168	0.0492	10.3	129	47.5	34.3	18.2
2001	8408	0.539	24.3	109	3379	168	0.0492	10.3	129	50.9	32.3	16.8
2002	8302	0.515	24.5	109	3391	173	0.0504	10.1	131	48.6	36.3	15.1
2003	7705	0.493	24.7	108	3431	178	0.0512	10.0	132	49.6	34.7	15.7
2004	8579	0.517	24.6	110	3462	183	0.0521	9.9	133	48.9	32.6	18.5

Table 2 (Continued)

**Vehicles Size and Design Characteristics of 1975 to 2004 Trucks**

<----- MEASURED CHARACTERISTICS ----->									<----- PERCENT BY: ----->					
MODEL YEAR	SALES (000)	FRAC	ADJ INERTIA						VEHICLE SIZE			VEHICLE TYPE		
			55/45 MPG	WGHT LB	ENG HP	HP/ WT	0-60 TIME	TOP SPD	SMALL	MID	LARGE	VAN	SUV	PICKUP
1975	1987	0.194	11.6	4072	142	0.0349	13.6	114	10.9	24.2	64.9	23.0	9.4	67.6
1976	2612	0.212	12.2	4154	141	0.0340	13.8	113	9.0	20.3	70.7	19.2	9.3	71.4
1977	2823	0.200	13.3	4135	147	0.0356	13.3	115	11.1	20.3	68.5	18.2	10.0	71.8
1978	3273	0.227	12.9	4151	146	0.0351	13.4	114	10.9	22.7	66.3	19.1	11.6	69.3
1979	3088	0.222	12.5	4251	138	0.0325	14.3	111	15.2	19.5	65.3	15.6	13.0	71.5
1980	1863	0.165	15.8	3868	121	0.0313	14.5	108	28.4	17.6	54.0	13.0	9.9	77.1
1981	1821	0.173	17.1	3805	119	0.0311	14.6	108	23.2	19.1	57.7	13.5	7.5	79.1
1982	1914	0.197	17.4	3805	120	0.0317	14.5	109	21.1	31.0	47.9	16.2	8.5	75.3
1983	2300	0.223	17.8	3763	118	0.0313	14.5	108	16.6	45.9	37.6	16.6	12.6	70.8
1984	3345	0.239	17.4	3782	118	0.0310	14.7	108	19.5	46.4	34.1	20.2	18.7	61.1
1985	3669	0.254	17.5	3795	124	0.0326	14.1	110	19.2	48.5	32.3	23.3	20.0	56.6
1986	4350	0.283	18.3	3737	123	0.0330	14.0	110	23.5	48.5	28.0	24.0	17.8	58.2
1987	4134	0.278	18.4	3712	131	0.0351	13.3	113	19.9	59.6	20.6	26.9	21.1	51.9
1988	4559	0.298	18.1	3841	141	0.0366	12.9	115	15.0	57.2	27.8	24.8	21.2	53.9
1989	4435	0.307	17.8	3921	146	0.0372	12.8	116	13.9	58.9	27.2	28.8	20.9	50.3
1990	3805	0.302	17.7	4005	151	0.0377	12.6	117	13.4	57.1	29.6	33.2	18.6	48.2
1991	4049	0.322	18.1	3948	150	0.0379	12.6	117	11.4	67.2	21.4	25.5	27.0	47.4
1992	4064	0.334	17.8	4055	155	0.0382	12.5	118	10.4	64.0	25.6	30.0	24.7	45.3
1993	4754	0.360	17.9	4073	162	0.0398	12.1	120	8.8	65.3	25.9	30.3	27.6	42.1
1994	5572	0.398	17.7	4129	166	0.0402	12.0	121	9.8	62.5	27.7	25.0	28.5	46.5
1995	5749	0.380	17.5	4184	168	0.0401	12.0	121	8.6	63.5	27.9	28.9	31.6	39.5
1996	5254	0.400	17.8	4224	179	0.0423	11.5	124	6.5	67.1	26.4	26.8	36.0	37.2
1997	6124	0.423	17.6	4344	187	0.0429	11.4	126	10.1	52.5	37.3	20.7	40.0	39.3
1998	6485	0.449	17.8	4282	187	0.0435	11.2	126	8.9	58.7	32.4	23.0	39.8	37.2
1999	6854	0.450	17.5	4411	197	0.0445	11.0	128	7.7	55.8	36.5	21.4	41.4	37.2
2000	7447	0.449	17.7	4375	197	0.0448	11.0	128	6.7	55.7	37.5	22.7	42.2	35.1
2001	7189	0.461	17.6	4462	209	0.0466	10.6	131	6.6	47.4	46.0	17.2	46.3	36.5
2002	7804	0.485	17.6	4547	220	0.0482	10.4	134	6.6	43.6	49.9	15.9	53.6	30.5
2003	7917	0.507	17.8	4595	223	0.0485	10.3	134	6.4	49.0	44.6	16.3	53.7	30.0
2004	8023	0.483	17.9	4712	235	0.0498	10.1	137	5.2	45.6	49.3	14.5	54.0	31.5

Table 2 (Continued)

## Vehicle Size and Design Characteristics of 1975 to 2004 Cars and Trucks

<----- MEASURED CHARACTERISTICS -----> <- PERCENT BY: ->											
MODEL YEAR	SALES (000)	FRAC	ADJ INERTIA		ENG HP	HP/ WT	0-60 TIME	TOP SPD	VEHICLE SIZE		
			55/45 MPG	WGHT LB					SMALL	MID	LARGE
1975	10224	1.000	13.1	4060	137	0.0335	14.1	112	46.8	23.5	29.8
1976	12334	1.000	14.2	4079	135	0.0328	14.3	111	45.6	24.2	30.3
1977	14123	1.000	15.1	3981	136	0.0339	13.8	112	43.8	23.7	32.5
1978	14448	1.000	15.8	3715	129	0.0344	13.6	112	37.0	31.7	31.2
1979	13882	1.000	15.9	3655	124	0.0335	13.9	110	37.3	30.9	31.7
1980	11306	1.000	19.2	3227	104	0.0320	14.3	107	50.1	31.6	18.3
1981	10554	1.000	20.5	3201	102	0.0318	14.4	107	46.6	33.4	20.0
1982	9732	1.000	21.1	3201	103	0.0320	14.4	107	49.6	31.0	19.5
1983	10302	1.000	21.0	3257	107	0.0327	14.1	108	44.9	34.9	20.1
1984	14020	1.000	21.0	3261	109	0.0332	14.0	109	48.4	33.4	18.2
1985	14460	1.000	21.3	3271	114	0.0347	13.5	110	46.5	33.9	19.7
1986	15365	1.000	21.9	3237	114	0.0351	13.4	111	49.3	33.7	17.0
1987	14865	1.000	22.1	3220	118	0.0361	13.1	112	51.4	34.1	14.5
1988	15295	1.000	22.1	3283	123	0.0372	12.8	114	50.0	32.7	17.3
1989	14453	1.000	21.7	3351	129	0.0382	12.5	115	44.7	37.6	17.7
1990	12615	1.000	21.5	3426	135	0.0394	12.2	117	44.9	37.2	17.8
1991	12573	1.000	21.7	3409	138	0.0402	12.1	118	45.3	39.4	15.2
1992	12172	1.000	21.3	3512	145	0.0413	11.8	120	41.1	39.9	19.0
1993	13211	1.000	21.4	3518	147	0.0416	11.8	120	39.8	42.4	17.8
1994	13986	1.000	21.0	3600	152	0.0420	11.7	121	39.1	40.6	20.3
1995	15145	1.000	21.1	3612	158	0.0438	11.3	123	38.8	41.9	19.3
1996	13144	1.000	21.2	3658	164	0.0447	11.1	125	35.2	46.0	18.7
1997	14467	1.000	20.9	3726	169	0.0452	11.0	126	36.1	39.9	24.1
1998	14457	1.000	20.9	3744	171	0.0457	10.9	126	31.2	47.9	20.8
1999	15233	1.000	20.6	3835	179	0.0465	10.7	128	29.7	46.9	23.4
2000	16574	1.000	20.7	3821	181	0.0472	10.6	129	29.2	43.9	26.9
2001	15598	1.000	20.7	3878	187	0.0480	10.5	130	30.4	39.3	30.3
2002	16106	1.000	20.6	3951	196	0.0493	10.2	132	28.2	39.8	31.9
2003	15623	1.000	20.7	4021	201	0.0498	10.2	133	27.7	42.0	30.3
2004	16602	1.000	20.8	4066	208	0.0510	10.0	135	27.8	38.9	33.3

Figure 1 shows graphically the increase in the percent of the fleet that is comprised of light trucks. Another dramatic trend over that time frame has been the substantial increase in performance of cars and light trucks as measured by their estimated 0-60 time. These trends are shown graphically in Figure 2 (for cars) and Figure 3 (for light trucks) which are plots of fuel economy versus performance, with model years as indicated. Both graphs show the same story: in responding to the regulatory requirements for MPG improvement, the industry increased MPG and kept performance roughly constant. After the regulatory MPG requirements stabilized, MPG improvements slowed and performance dramatically improved. This trend toward increased performance is as important as the truck market share trend in understanding trends in overall fleet MPG.

The distribution of MPG in any model year is of interest. In Figure 4, highlights of the distribution of car MPG are shown. Since 1975, the distribution has both narrowed and widened. Half of the cars have consistently been within a few MPG of each other, but the range of the highest to lowest has increased from about 3:1 in 1975 to about 6:1 today. In absolute terms, the fuel economy difference between the least efficient and most efficient car increased from about 20 MPG in 1975 to nearly 40 MPG a decade later in 1985, and became, since the introduction for sale of the Honda Insight gasoline-electric hybrid vehicle in model year 2000, more than 50 MPG.

The overall MPG distribution trend for trucks (see Figure 5) is similar to that for cars, but narrower with a peak in the efficiency of the most efficient truck in the early 1980s when small pickup trucks equipped with diesel engines were being sold. As a result, the fuel economy range between the most efficient and least efficient truck has narrowed from about 30 MPG in 1983 to about 14 MPG this year. Like cars, half of the trucks built each year have always been within a few MPG of each year's average fuel economy value.

Vehicles at the high end of the distribution are presented in Table 3. Cars and light trucks representing the top one percent of their respective distributions were selected for this table. For cars, hybrid, diesel, and conventional drivetrains are all represented as are continuously variable transmissions (CVTs), manual transmissions, and automatic transmissions. The cars all have 4-cylinder (or less) engines, front wheel drive, and weigh 3500 lb or less. Small and mid-size cars are included, but not large cars.

For light trucks, only conventional powertrains are represented. Both front and rear wheel drive are represented, as are automatic and manual transmissions; large vans, large pickups, and large SUVs are not represented.

### Car 55/45 Laboratory MPG vs 0 to 60 Time

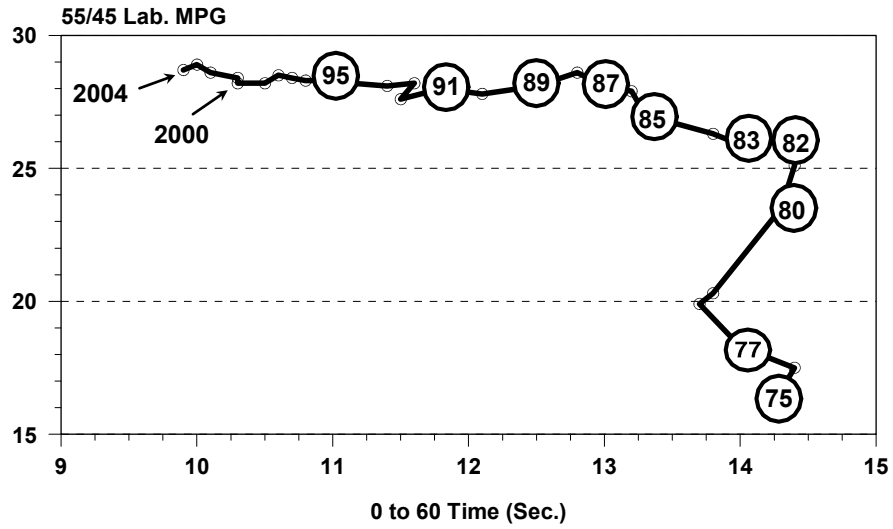


Figure 2

### Light Truck 55/45 Laboratory MPG vs 0 to 60 Time

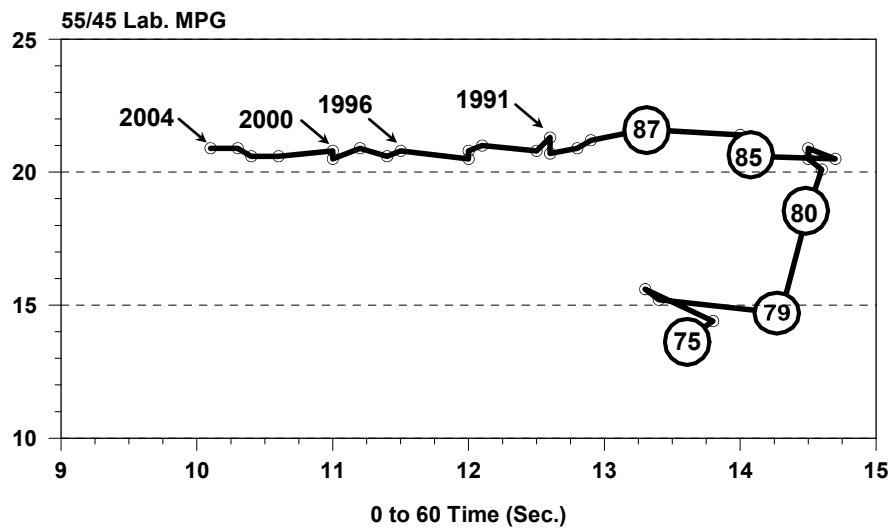


Figure 3

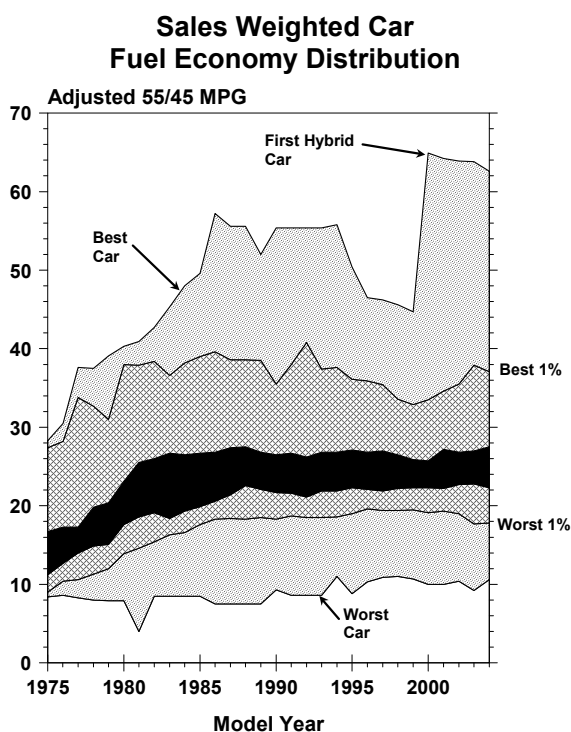


Figure 4

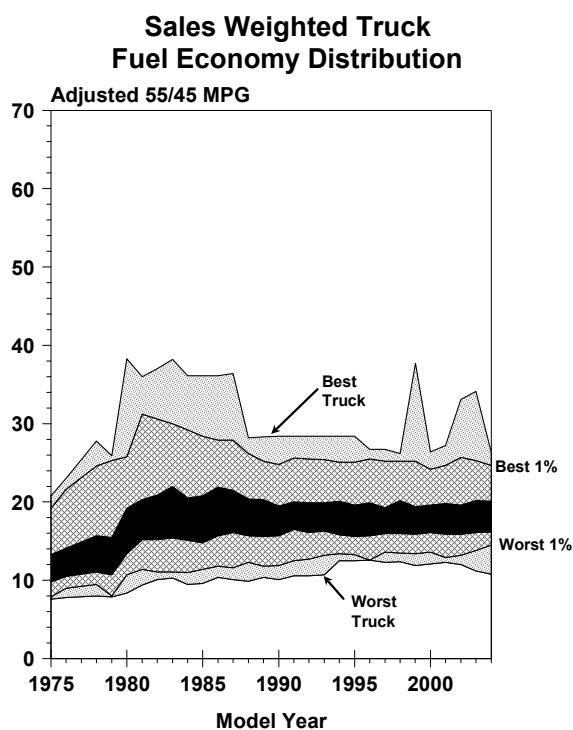


Figure 5

Table 3

**Characteristics of Cars and Trucks with Relatively High Fuel Economy**

MFR	Model Name	Inertia Weight	Drive	Engine CID	HP	Trans	Vehicle Type/Size	Adjusted MPG	Ton-MPG
<b>Cars</b>									
Honda	Insight Hyb.	2000	Front	61	67	M5	Small Car	62.6	62.6
Honda	Insight Hyb.	2250	Front	61	65	CVT	Small Car	56.1	63.2
Toyota	Prius Hyb.	3000	Front	91	76	CVT	Midsize Car	55.3	83.0
Honda	Civic Hyb.	3000	Front	82	85	M5	Small Car	48.0	72.0
Honda	Civic Hyb.	3000	Front	82	85	CVT	Small Car	47.6	71.4
Honda	Civic Hyb.	3000	Front	82	85	CVT	Small Car	47.4	71.1
Honda	Civic Hyb.	3000	Front	82	85	M5	Small Car	47.3	71.0
VW	Diesels	3000	Front	116	100	M5	Small Car	41.2	61.8
VW	Jetta Dsl.	3500	Front	116	100	M5	Small Wagon	40.5	70.9
Honda	Civic	2750	Front	102	117	M5	Small Car	39.3	54.0
Toyota	Echo	2250	Front	91	108	M5	Small Car	38.6	43.5
VW	Diesels	3500	Front	116	100	L6	Small Car	38.3	66.9
Toyota	Echo	2500	Front	91	108	M5	Small Car	38.2	47.7
Honda	Civic	2750	Front	102	117	CVT	Small Car	37.0	50.8
VW	Diesels	3500	Front	116	100	L5	Small Wagon	37.1	64.9
<b>Trucks</b>									
Toyota	RAV4	3000	Front	161	144	L4	Small SUV	26.3	39.4
Toyota	RAV4	3000	Front	161	144	M5	Small SUV	26.3	39.4
GM	VUE	3500	Front	140	134	M5	Midsize SUV	25.8	45.1
Ford	Ranger	3500	Rear	140	140	M5	Midsize Pickup	25.7	45.0
Honda	CR-V	3500	Front	160	144	L4	Midsize SUV	25.0	43.8
Ford	Escape	3500	Front	130	122	M5	Midsize SUV	24.7	43.2

### III. Technology Trends

Table 4 repeats some of the data from Tables 1 and 2 and adds powertrain information including front-wheel drive percent, transmission type, fuel metering, and percent of vehicles equipped with engines that have four valves per cylinder. Cars are predominantly powered by gasoline-fueled engines that use port fuel injection and have four valves per cylinder, and use lockup automatic transmissions driving the front wheels. Trucks have gasoline-fueled engines with port fuel injection and have two valves per cylinder, and use lockup automatic transmissions that drive the rear or all four wheels.

Table 5 compares technology usage for MY2004 by vehicle type and size. As discussed in Appendix A, wheelbase is used in this report to distinguish whether a truck is small, mid-size, or large, and four EPA Car Classes (Two-Seater, Minicompact, Compact, and Subcompact) have been combined to form the small car class. For this table, the car classes are separated into cars and station wagons, so that the table stratifies light-duty vehicles into a total of 15 vehicle types and sizes. Note that this table does not contain any data for small vans, because none have been produced since 1996.

In some of the tables and figures in this report, only four vehicle types are used. In these cases, wagons have been merged with cars. This is because the wagon sales fraction for some instances is so small that the information is more conveniently represented by combining the two vehicle types. When they have been combined, the differences between them are not important

Front-wheel drive (FWD) is used heavily in all of the car classes, in small wagons, and midsize vans. By comparison, none of this year's pickups will have front-wheel drive, and little use of it is found in large vans or SUVs. Conversely, four-wheel drive (4WD) is used heavily in SUVs and pickups. Many of the midsize and large wagons also have 4WD, but very little use of it is made in vans and cars.

Manual transmissions are used more in small and mid-size vehicles in 2004 than in larger vehicles. Similarly, usage of engines with four valves per cylinder is prevalent on small vehicles and also midsize cars, wagons, and SUVs.

Detailed tabulations of different technology types, including technology usage percentages for other model years, can be found in the Appendixes.



Table 4

## Powertrain Characteristics of 1975 to 2004 Vehicles

<--- Measured Characteristics ---> <----- Percent by: ----->															
MODEL YEAR	SALES (000)	FRAC	ADJ 55/45 MPG	ENGINE CID	HP	HP/ CID	DRIVETRAIN FRONT 4WD	TRANSMISSION MANUAL LOCK	FUEL FI	METERING PORT TBI	CARB	DSL	FOUR VALVE		
Cars															
1975	8237	0.806	13.5	288	136	0.515	6.5 0.0	19.9 0.0	5.1	5.1	0.0	94.6	0.2	0.0	
1976	9722	0.788	14.9	287	134	0.502	5.8 0.0	17.1 0.0	3.2	3.2	0.0	96.6	0.3	0.0	
1977	11300	0.800	15.6	279	133	0.516	6.8 0.0	16.8 0.0	4.2	4.2	0.0	95.3	0.5	0.0	
1978	11175	0.773	16.9	251	124	0.538	9.6 0.0	20.2 6.7	5.1	5.1	0.0	94.0	0.9	0.0	
1979	10794	0.778	17.2	238	119	0.545	11.9 0.3	22.3 8.0	4.7	4.7	0.0	93.2	2.1	0.0	
1980	9443	0.835	20.0	188	100	0.583	29.7 0.9	31.9 16.5	6.9	6.2	0.7	88.7	4.4	0.0	
1981	8733	0.827	21.4	182	99	0.594	37.0 0.7	30.4 33.3	8.8	6.1	2.6	85.3	5.9	0.0	
1982	7819	0.803	22.2	175	99	0.609	45.6 0.8	29.7 51.4	17.0	7.2	9.8	78.4	4.7	0.0	
1983	8002	0.777	22.1	182	104	0.615	47.3 3.1	26.5 56.7	28.3	9.5	18.9	69.6	2.1	0.0	
1984	10675	0.761	22.4	179	106	0.637	53.7 1.0	24.1 58.3	39.4	15.0	24.4	58.9	1.7	0.0	
1985	10791	0.746	23.0	177	111	0.671	61.6 2.1	22.8 58.7	53.5	21.4	32.0	45.6	0.9	0.0	
1986	11015	0.717	23.8	167	111	0.701	71.1 1.1	24.8 58.0	65.1	36.7	28.4	34.5	0.3	1.6	
1987	10731	0.722	24.0	162	112	0.732	77.0 1.1	24.9 59.5	73.0	42.5	30.5	26.8	0.3	5.6	
1988	10736	0.702	24.4	160	116	0.759	81.7 0.8	24.3 66.1	83.7	53.7	30.0	16.3	0.0	10.4	
1989	10018	0.693	24.0	163	121	0.783	82.5 1.0	21.0 69.3	90.2	62.4	27.8	9.7	0.0	12.8	
1990	8810	0.698	23.7	163	129	0.829	84.6 1.0	19.6 72.9	98.6	77.5	21.1	1.4	0.0	25.7	
1991	8524	0.678	23.9	163	132	0.851	83.2 1.4	20.5 73.5	99.8	78.0	21.8	0.0	0.1	28.2	
1992	8108	0.666	23.6	170	141	0.868	80.8 1.1	17.4 76.4	99.9	89.5	10.4	0.0	0.1	29.7	
1993	8457	0.640	24.1	166	138	0.865	85.1 1.2	17.8 76.9	100.0	91.6	8.4	0.0	0.0	32.8	
1994	8414	0.602	24.0	168	143	0.884	84.4 0.4	16.7 79.3	100.0	94.9	5.1	0.0	0.0	38.9	
1995	9396	0.620	24.2	167	152	0.945	82.0 1.2	16.3 81.9	99.9	98.8	1.2	0.0	0.1	52.1	
1996	7890	0.600	24.2	165	154	0.958	86.5 1.5	14.9 83.6	99.9	98.8	1.1	0.0	0.1	56.2	
1997	8343	0.577	24.3	164	156	0.974	86.6 1.7	13.5 85.8	99.9	99.1	0.8	0.0	0.1	57.4	
1998	7971	0.551	24.4	164	159	0.993	87.0 2.3	12.3 87.4	99.8	99.7	0.1	0.0	0.2	60.5	
1999	8379	0.550	24.1	166	164	1.008	87.2 2.2	10.9 88.4	99.8	99.7	0.1	0.0	0.2	59.4	
2000	9128	0.551	24.1	165	168	1.032	84.9 2.1	11.2 87.7	99.8	99.7	0.1	0.0	0.2	63.2	
2001	8408	0.539	24.3	165	168	1.042	84.1 3.2	11.4 87.5	99.7	99.7	0.0	0.0	0.3	61.8	
2002	8302	0.515	24.5	166	173	1.066	84.9 3.8	11.5 87.8	99.6	99.6	0.0	0.0	0.4	65.0	
2003	7705	0.493	24.7	171	178	1.084	81.9 3.2	10.8 88.3	99.6	99.6	0.0	0.0	0.4	67.9	
2004	8579	0.517	24.6	170	183	1.096	80.2 5.0	13.0 84.6	99.8	99.8	0.0	0.0	0.2	69.1	

Table 4, Continued

## Powertrain Characteristics of 1975 to 2004 Vehicles

&lt;- Measured Characteristics -&gt; &lt;----- Percent by: -----&gt;

MODEL YEAR	SALES (000)	FRAC	ADJ 55/45	ENGINE CID	HP	HP/ CID	DRIVETRAIN FRONT 4WD	TRANSMISSION MANUAL LOCK	FUEL METERING FI PORT TBI	CARB	DSL	FOUR VALVE
<b>Trucks</b>												
1975	1987	0.194	11.6	311	142	0.476	0.0 17.1	37.0 0.0	0.1 0.0 0.0	99.9	0.0	0.0
1976	2612	0.212	12.2	319	141	0.458	0.0 22.9	34.8 0.0	0.1 0.0 0.0	99.9	0.0	0.0
1977	2823	0.200	13.3	318	147	0.482	0.0 23.6	32.0 0.0	0.1 0.0 0.0	99.9	0.0	0.0
1978	3273	0.227	12.9	314	146	0.481	0.0 29.0	32.4 0.0	0.1 0.0 0.0	99.1	0.8	0.0
1979	3088	0.222	12.5	298	138	0.486	0.0 18.0	35.2 2.1	0.3 0.0 0.0	97.9	1.8	0.0
1980	1863	0.165	15.8	248	121	0.528	1.4 25.0	53.0 24.6	1.7 0.0 0.0	94.9	3.5	0.0
1981	1821	0.173	17.1	247	119	0.508	1.9 20.1	51.6 31.1	1.1 0.0 0.0	93.3	5.6	0.0
1982	1914	0.197	17.4	243	120	0.524	1.7 20.0	45.7 33.2	0.7 0.0 0.0	90.0	9.3	0.0
1983	2300	0.223	17.8	231	118	0.543	1.4 25.8	45.9 36.1	0.6 0.0 0.0	94.7	4.7	0.0
1984	3345	0.239	17.4	224	118	0.557	4.9 31.0	42.1 35.1	2.6 0.0 0.0	95.1	2.3	0.0
1985	3669	0.254	17.5	224	124	0.586	7.1 30.6	37.1 42.2	12.3 0.0 0.2	86.7	1.1	0.0
1986	4350	0.283	18.3	211	123	0.621	5.9 30.3	42.7 42.0	40.5 21.8 18.7	58.7	0.7	0.0
1987	4134	0.278	18.4	210	131	0.654	7.4 31.5	39.9 44.8	66.9 33.3 33.6	32.9	0.3	0.0
1988	4559	0.298	18.1	227	141	0.650	9.0 33.3	35.5 53.1	87.7 43.3 44.4	12.1	0.2	0.0
1989	4435	0.307	17.8	234	146	0.653	9.9 32.0	32.7 56.8	93.5 45.9 47.6	6.3	0.2	0.0
1990	3805	0.302	17.7	237	151	0.668	15.5 31.3	28.1 67.4	96.0 55.2 40.8	3.9	0.2	0.0
1991	4049	0.322	18.1	228	150	0.681	9.7 35.3	31.0 67.4	98.2 55.0 43.2	1.6	0.1	0.0
1992	4064	0.334	17.8	234	155	0.685	13.6 31.4	27.3 71.5	98.4 65.9 32.5	1.5	0.1	0.0
1993	4754	0.360	17.9	235	162	0.710	15.1 29.5	23.3 75.7	99.0 73.4 25.7	1.0	0.0	0.2
1994	5572	0.398	17.7	240	166	0.716	13.3 37.4	23.3 75.2	99.6 76.8 22.8	0.4	0.0	2.5
1995	5749	0.380	17.5	244	168	0.715	17.7 40.7	20.5 78.6	100.0 79.8 20.2	0.0	0.0	8.1
1996	5254	0.400	17.8	243	179	0.757	20.1 37.1	15.6 83.5	99.9 99.9 0.0	0.0	0.1	10.4
1997	6124	0.423	17.6	248	187	0.775	13.9 43.2	14.6 85.0	100.0 100.0 0.0	0.0	0.0	11.3
1998	6485	0.449	17.8	242	187	0.795	18.7 42.0	13.4 86.0	100.0 100.0 0.0	0.0	0.0	15.2
1999	6854	0.450	17.5	249	197	0.814	17.3 44.6	9.1 90.5	100.0 100.0 0.0	0.0	0.0	16.2
2000	7447	0.449	17.7	242	197	0.832	19.4 42.4	8.0 91.7	100.0 100.0 0.0	0.0	0.0	20.4
2001	7189	0.461	17.6	243	209	0.882	18.5 43.8	6.3 93.4	100.0 100.0 0.0	0.0	0.0	27.1
2002	7804	0.485	17.6	244	220	0.918	18.5 47.5	5.0 94.7	100.0 100.0 0.0	0.0	0.0	35.0
2003	7917	0.507	17.8	245	223	0.929	18.9 47.1	4.2 94.3	100.0 100.0 0.0	0.0	0.0	36.4
2004	8023	0.483	17.9	251	235	0.955	18.5 49.6	4.1 94.6	100.0 100.0 0.0	0.0	0.0	44.3

Table 4, Continued

## Powertrain Characteristics of 1975 to 2004 Vehicles

&lt;- Measured Characteristics -&gt; &lt;----- Percent by: -----&gt;

MODEL YEAR	SALES (000)	FRAC	ADJ 55/45	ENGINE CID	HP HP	HP/ CID	DRIVETRAIN FRONT 4WD	TRANSMISSION MANUAL LOCK	FUEL METERING FI PORT TBI	CARB	DSL	FOUR VALVE
Both												
1975	10224	1.000	13.1	293	137	0.507	5.3 3.3	23.2 0.0	4.1 4.1 0.0	95.7	0.2	0.0
1976	12334	1.000	14.2	294	135	0.493	4.6 4.8	20.9 0.0	2.5 2.5 0.0	97.3	0.2	0.0
1977	14123	1.000	15.1	287	136	0.510	5.5 4.7	19.8 0.0	3.4 3.4 0.0	96.2	0.4	0.0
1978	14448	1.000	15.8	266	129	0.525	7.4 6.6	23.0 5.2	3.9 3.9 0.0	95.2	0.9	0.0
1979	13882	1.000	15.9	252	124	0.532	9.2 4.3	25.1 6.7	3.7 3.7 0.0	94.2	2.0	0.0
1980	11306	1.000	19.2	198	104	0.574	25.0 4.9	35.4 17.8	6.0 5.2 0.6	89.7	4.3	0.0
1981	10554	1.000	20.5	193	102	0.580	31.0 4.0	34.1 33.0	7.5 5.1 2.2	86.7	5.9	0.0
1982	9732	1.000	21.1	188	103	0.593	37.0 4.6	32.8 47.8	13.8 5.8 7.9	80.6	5.6	0.0
1983	10302	1.000	21.0	193	107	0.599	37.0 8.1	30.8 52.1	22.1 7.3 14.7	75.2	2.7	0.0
1984	14020	1.000	21.0	190	109	0.618	42.1 8.2	28.4 52.8	30.6 11.4 18.6	67.6	1.8	0.0
1985	14460	1.000	21.3	189	114	0.650	47.8 9.3	26.5 54.5	43.0 16.0 23.9	56.1	0.9	0.0
1986	15365	1.000	21.9	180	114	0.678	52.6 9.3	29.8 53.5	58.2 32.5 25.7	41.4	0.4	1.1
1987	14865	1.000	22.1	175	118	0.710	57.7 9.6	29.1 55.4	71.3 39.9 31.4	28.4	0.3	4.0
1988	15295	1.000	22.1	180	123	0.726	60.0 10.5	27.6 62.2	84.9 50.6 34.3	15.0	0.1	7.3
1989	14453	1.000	21.7	185	129	0.743	60.2 10.5	24.6 65.5	91.2 57.3 33.9	8.7	0.1	8.9
1990	12615	1.000	21.5	185	135	0.781	63.8 10.1	22.2 71.2	97.8 70.8 27.0	2.1	0.1	17.9
1991	12573	1.000	21.7	184	138	0.796	59.6 12.3	23.9 71.6	99.3 70.6 28.7	0.6	0.1	19.1
1992	12172	1.000	21.3	191	145	0.807	58.4 11.2	20.7 74.8	99.4 81.6 17.8	0.5	0.1	19.8
1993	13211	1.000	21.4	191	147	0.809	59.9 11.4	19.8 76.5	99.7 85.0 14.6	0.3	0.0	21.1
1994	13986	1.000	21.0	196	152	0.817	56.1 15.1	19.4 77.7	99.9 87.7 12.2	0.1	0.0	24.4
1995	15145	1.000	21.1	196	158	0.857	57.6 16.2	17.9 80.7	100.0 91.6 8.4	0.0	0.0	35.4
1996	13144	1.000	21.2	197	164	0.878	60.0 15.7	15.2 83.5	99.9 99.3 0.7	0.0	0.1	37.9
1997	14467	1.000	20.9	199	169	0.890	55.8 19.3	13.9 85.5	99.9 99.5 0.5	0.0	0.1	37.9
1998	14457	1.000	20.9	199	171	0.904	56.4 20.1	12.8 86.8	99.9 99.8 0.1	0.0	0.1	40.2
1999	15233	1.000	20.6	203	179	0.920	55.8 21.3	10.1 89.4	99.9 99.9 0.1	0.0	0.1	39.9
2000	16574	1.000	20.7	200	181	0.942	55.5 20.2	9.7 89.5	99.9 99.8 0.0	0.0	0.1	44.0
2001	15598	1.000	20.7	201	187	0.968	53.9 22.0	9.0 90.2	99.9 99.9 0.0	0.0	0.1	45.8
2002	16106	1.000	20.6	203	196	0.994	52.7 25.0	8.3 91.2	99.8 99.8 0.0	0.0	0.2	50.4
2003	15623	1.000	20.7	209	201	1.005	50.0 25.4	7.4 90.0	99.8 99.8 0.0	0.0	0.2	52.0
2004	16602	1.000	20.8	209	208	1.028	50.3 26.6	8.7 89.4	99.9 99.9 0.0	0.0	0.1	57.1

Table 5

**MY2004 Technology Usage by Vehicle Type and Size  
(Percent of Vehicle Type/Size Strata)**

<b>Vehicle Type</b>	<b>Size</b>	<b>Front Wheel Drive</b>	<b>Four Wheel Drive</b>	<b>Manual Trans.</b>	<b>Four valves per Cylinder</b>
<b>Car</b>	Small	75	6	23	76
	Midsize	91	1	6	76
	Large	78	1	0	33
	All	81	3	13	68
<b>Wagon</b>	Small	84	15	22	93
	Midsize	47	51	9	75
	Large	50	50	0	100
	All	70	29	16	89
<b>Van</b>	Small	--	--	--	--
	Midsize	93	4	0	48
	Large	0	16	0	0
	All	85	5	0	44
<b>SUV</b>	Small	18	77	24	79
	Midsize	18	65	3	65
	Large	3	68	0	45
	All	12	67	3	57
<b>Pickup</b>	Small	0	51	27	100
	Midsize	0	32	21	23
	Large	0	41	4	15
	All	0	41	8	23
<b>All</b>	Cars and Wagons	80	5	13	69
<b>All</b>	Trucks	19	50	4	44
<b>All</b>	Vehicles	51	27	9	57

Figures 6 through 10 show trends in drive use for the five vehicle classes. Cars used to be all rear-wheel drive (RWD), now they are over 80 percent front-wheel drive with a small four-wheel drive fraction, and the trend is flat. Only a small percentage of wagons still have rear-wheel drive, but in recent years they have made substantial use of 4WD.

Drive usage for vans is similar to that for cars, although the trend since the introduction of FWD vans is sharper than it was for cars and appears to be continuing. SUVs are mostly 4WD; with the beginning of a trend toward FWD just showing up recently. Pickups remain the bastion of RWD with the increasing amount of 4WD the only other drive option. Except for a brief period in the early 1980s, front-wheel drive has not been used in pickups.

**Front, Rear and Four Wheel Drive Usage  
Cars**

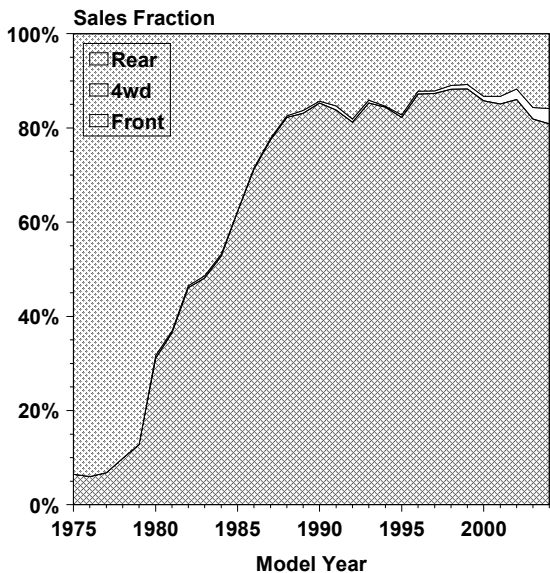


Figure 6

**Front, Rear and Four Wheel Drive Usage  
Wagons**

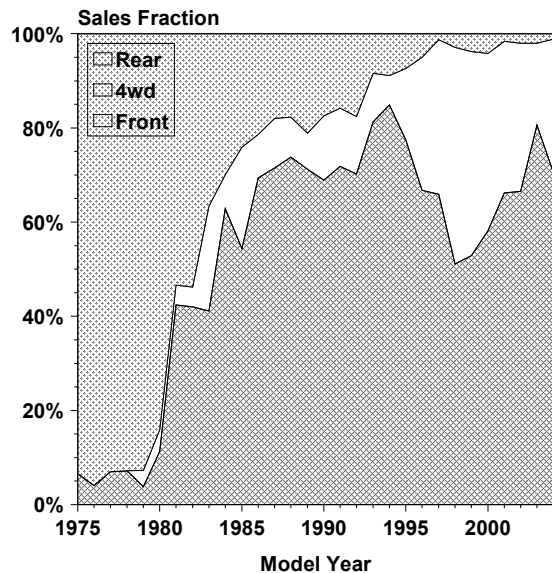
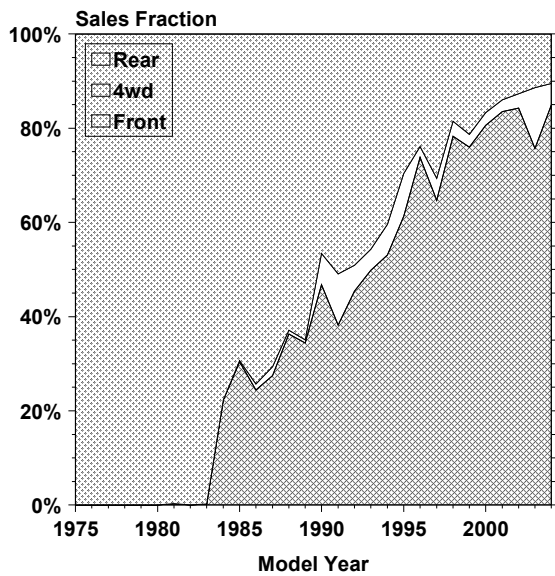
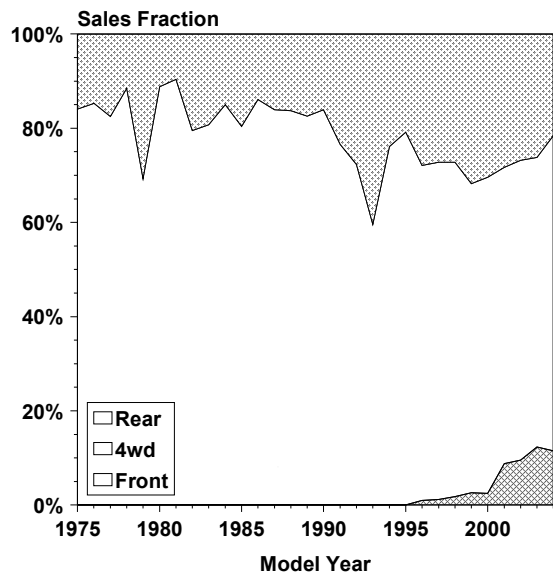


Figure 7

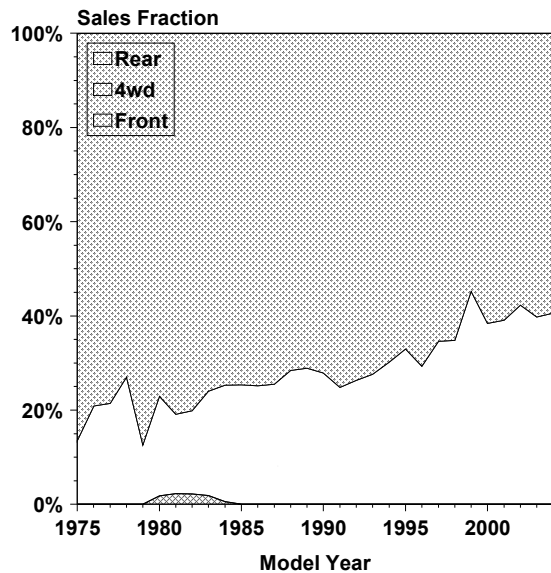
### Front, Rear and Four Wheel Drive Usage Vans



### Front, Rear and Four Wheel Drive Usage SUVs



### Front, Rear and Four Wheel Drive Usage Pickups



Three important changes in transmission design have occurred in recent years:

- 1) the addition of a gear for both automatic and manual transmissions,
- 2) for the automatics, conversion to lockup (L3, L4, or L5) torque converter transmissions, and
- 3) the use of continuously variable transmissions (CVTs).

Figures 11 to 14 indicate that the L4 transmission is currently the predominant transmission type for all vehicle classes. For purposes of this analysis, cars and wagons have been combined as "cars," because the trends for wagons are not significantly different from that for cars. Where manual transmissions are used, the 5-speed (M5) transmission now predominates.

A small fraction (too small to show on the figures) of vehicles are equipped with M6 and L6 transmissions in MY2004. More data stratified by transmission type can be found in Appendix J.

The increasing trend in Ton-MPG shown in Table 1 can be attributed to better vehicle design, including more efficient engines, better transmission design, and better matching of the engine and transmission. Powertrains are matched to the load better when the engine operates closer to its best efficiency point more of the time. For many conventional engines, this point is approximately 2000 RPM and 2/3 of the maximum torque at that speed. One way to make the engine operate more closely to its best efficiency point is to increase the number of gears in the transmission and, for automatic transmissions, employing a lockup torque converter.

Table 6 compares Ton-MPG by transmission and vehicle type between 1987, the peak year for passenger car fuel economy, and this year. For nearly every strata for which the equivalent vehicle type used the same transmission type in both years shown in the table, Ton-MPG will be higher this year than it was in 1987. For model year 2004, cars, pickups, and SUVs equipped with L5 transmissions will achieve about the same Ton-MPG as their MY2004 M5-equipped counterparts. Similarly, for all four vehicle types, MY2004 vehicles with L4 transmissions achieve better Ton-MPG this year than any of the corresponding vehicles did in 1987.

### Transmission Sales Fraction Cars

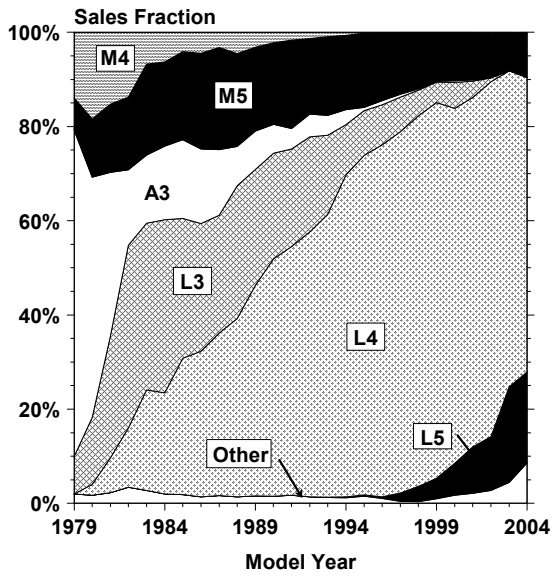


Figure 11

### Transmission Sales Fraction Vans

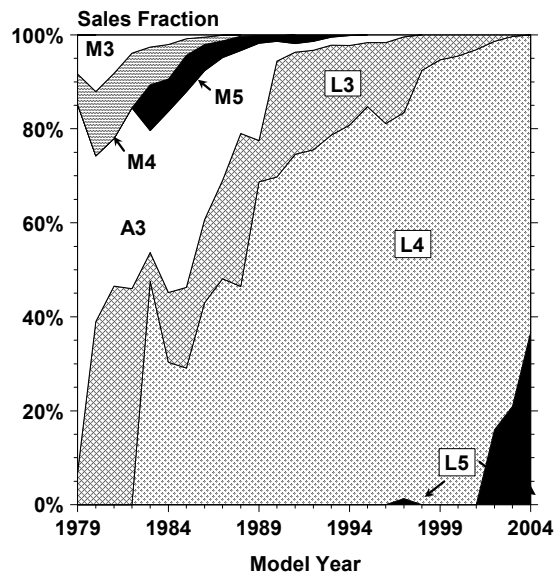


Figure 12

### Transmission Sales Fraction SUVs

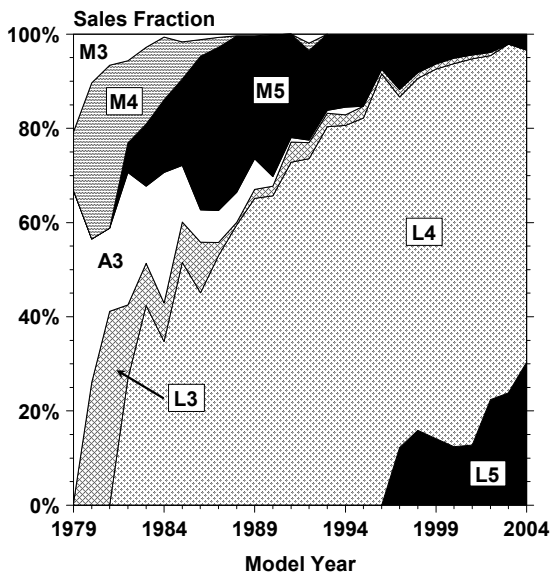


Figure 13

### Transmission Sales Fraction Pickups

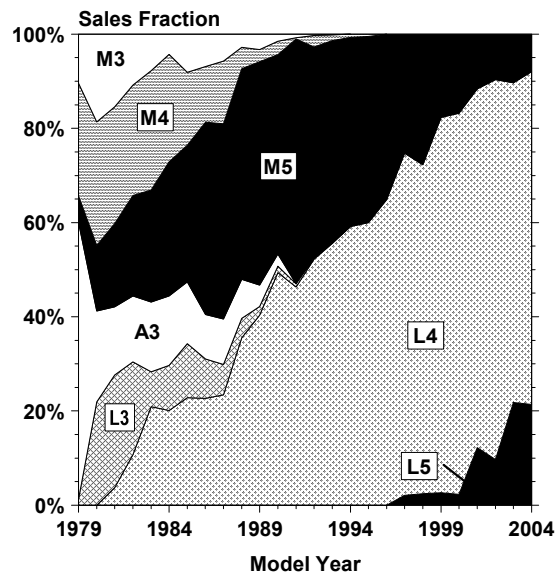


Figure 14



Table 6

**Ton-MPG by Transmission and Vehicle Type**

Trans	Car		Van		SUV		Pickup	
	2004	1987	2004	1987	2004	1987	2004	1987
M5	44	37	--	37	39	34	39	35
M6	39	--	--	--	40	--	--	--
L3	--	36	--	36	--	31	--	32
L4	43	37	44	36	42	35	43	34
L5	43	--	47	--	41	--	40	--
L6	43	--	--	--	--	--	--	--

A recent powertrain trend has been the development and introduction of CVTs in some vehicle models. These transmissions differ from conventional automatic transmissions and manual transmissions in that CVTs do not have a fixed number of gears. Transmissions alter the ratio of engine speed to drive wheel speed. In conventional transmissions, this speed ratio is limited to a fixed number of discrete values. For a CVT, the ratio is continuous.

In addition to novelty, the advantage of a CVT is that the engine speed/drive wheel speed ratio can be altered to enhance vehicle performance or fuel economy in ways not available with conventional transmissions. Currently, vehicles equipped with CVTs constitute less than two percent of the light-duty vehicle fleet, compared to about one percent last year.

In order to assess the relative efficiency of CVTs compared to conventional transmissions, vehicle models were selected that were available with more than one transmission type. In many cases, the resulting matches turned out to involve vehicles of slightly different weight, which would add additional complexity to an analysis using fuel economy as the variable, so ton-miles per gallon was used as the measure of comparison to account for the weight differences. The Ton-MPG values from the 2004 database were normalized to the values for the M5 transmission, and the results are shown in Table 7.

Table 7 and Figure 15 show that CVTs compared to M5 transmissions on a Ton-MPG basis are lower in Highway Ton-MPG, with city Ton-MPG results both higher and lower in the eight cases in the Table. Resulting 55/45 Ton-MPG values range from 13 percent lower to one percent higher, compared to the M5 transmission, with the average ratio being 0.96.

Table 7

Ton-MPG Ratio to M5					
Model Year 2004 Light-Duty Vehicles					
		<u>City</u>	<u>Highway</u>	<u>55/45</u>	
Saturn Ion	CVT	0.95	0.87	0.92	
	L5	0.88	0.88	0.88	M5>CVT>L5
	M5	1.00	1.00	1.00	
Saturn Vue	CVT	0.91	0.96	0.93	
	M5	1.00	1.00	1.00	M5>CVT
Mini Cooper	CVT	0.87	0.87	0.87	
	M5	1.00	1.00	1.00	M5>CVT
Civic	CVT	0.96	0.92	0.94	
	M5	1.00	1.00	1.00	M5>CVT
Civic Hybrid	CVT	1.04	0.93	0.99	
	M5	1.00	1.00	1.00	M5=CVT
Civic Hybrid	CVT	1.05	0.94	1.01	
	M5	1.00	1.00	1.00	M5=CVT
Insight Hybrid	CVT	1.05	0.96	1.01	
	M5	1.00	1.00	1.00	M5=CVT
A4	CVT	1.04	0.94	1.00	
	M5	1.00	1.00	1.00	M5=CVT

### Relative 55/45 Ton-MPG by Transmission Type Model Year 2004 Light-Duty Vehicles

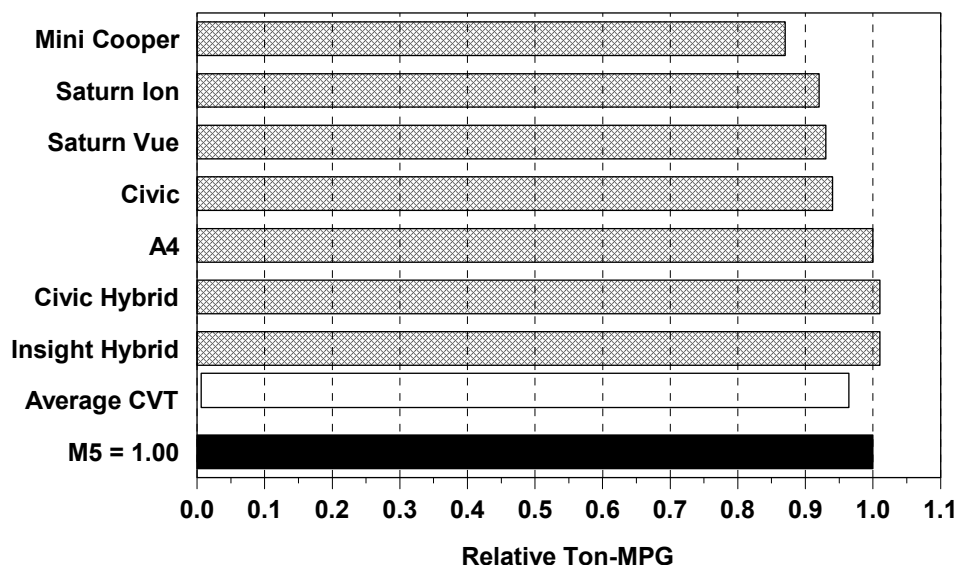


Figure 15

Figures 16 through 19 compare the trends since 1975 for horsepower (HP), displacement (CID), and specific power or horsepower per cubic inch (HP/CID) for cars, vans, SUVs, and pickups. For all four vehicle types, significant CID reductions occurred in the late 1970s and early 1980s. Since 1985, however, engine displacement has been flat for cars and vans but has increased for SUVs and particularly for pickups. Average horsepower has increased substantially for all of these vehicle types since 1981 with the highest increase occurring for pickups whose HP is now almost double what it was then.

Light-duty vehicle engines, thus, have also improved in HP/CID, with engines used in passenger cars improving at a faster rate than truck engines. In fact, for the past several years, car engines have averaged at least 1.0 HP/CID, but vans, SUVs, and pickups have yet to reach the 1.0 HP/CID level.

**Car Horsepower, CID  
and Horsepower per CID**

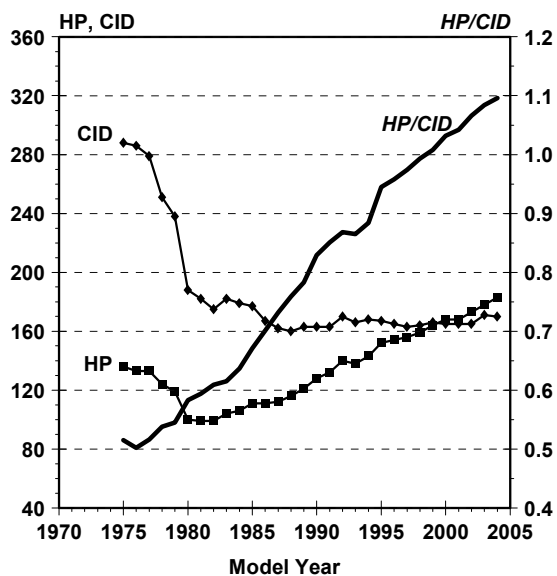


Figure 16

**Van Horsepower, CID  
and Horsepower per CID**

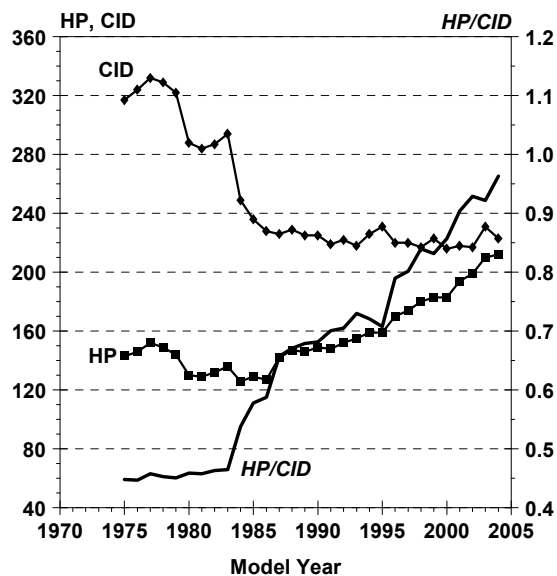


Figure 17

**SUV Horsepower, CID  
and Horsepower per CID**

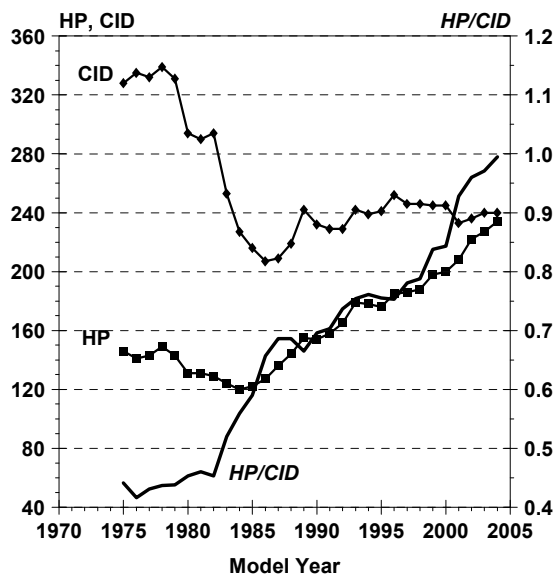


Figure 18

**Pickup Horsepower, CID  
and Horsepower per CID**

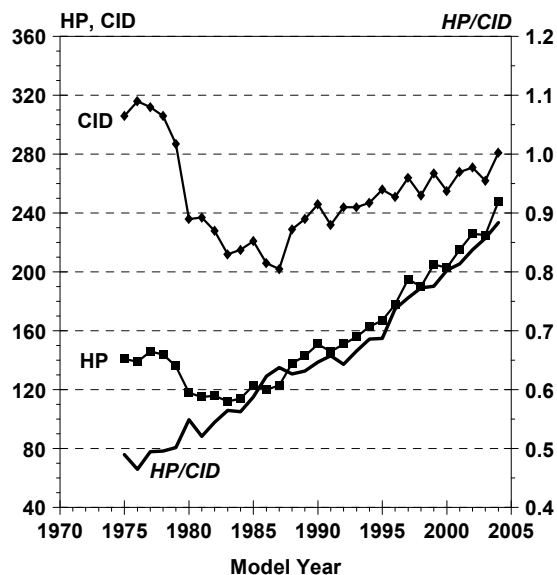


Figure 19

As shown in Table 8, for model year 2004, depending on the vehicle type, truck engines average approximately 16- to 36-percent more horsepower but require about 31- to 65 percent greater displacement, compared to the average passenger-car engine because of the differences in specific power. Note that the specific power of the light-duty fleet now exceeds the 1.0 HP/CID level.

Table 8

**MY2004 Engine Characteristics by Vehicle Type**

Vehicle Type	HP	CID	HP/CID	Percent 4 Valve
Car	183	170	1.10	69%
Van	212	223	0.96	44%
SUV	234	240	1.00	57%
Pickup	248	280	0.88	23%
All	208	209	1.03	57%

Table 9 compares CID, HP, and HP/CID by vehicle type and number of cylinders for model years 1987 and 2004. Table 9 shows that the increase in horsepower shown for the fleet in Table 1 extends to all vehicle type and cylinder member strata. All strata show improvements, ranging from 40 percent to 79 percent in horsepower. Because of the less than equal changes in displacement (-7% to 13%), it can be seen that the primary reason for the horsepower increase is increased specific power – up between 33 percent and 92 percent from 1987 to 2004. At the number-of-cylinders level of stratification, model year 2004 cars achieve higher specific power than SUVs, vans, and pickup trucks.

A reason for the lower specific power of some truck engines is that these vehicles may be used to carry heavy loads or pull trailers and thus need more "torque rise," (i.e., an increase in torque as engine speed falls from the peak power point) to achieve acceptable driveability. Engines equipped with four valves per cylinder typically have inherently lower torque rise than two valve engines with lower specific power.

Table 9

**Improvement in Horsepower and Specific Power  
by Vehicle Type and Number of Cylinders**

Vehicle Type	Cyl.	HP 1987	HP 2004	Percent Change	CID 1987	CID 2004	Percent Change	HP/CID 1987	HP/CID 2004	Percent Change
Car	4	92	143	55%	121	126	4%	0.772	1.145	48%
	6	143	208	45%	198	200	1%	0.733	1.047	43%
	8	155	278	79%	299	280	-6%	0.520	0.996	92%
Van	4	100	150	50%	143	148	3%	0.701	1.013	45%
	6	149	209	40%	219	217	-1%	0.703	0.971	38%
	8	167	264	58%	319	312	-2%	0.521	0.845	62%
SUV	4	95	159	67%	127	144	13%	0.755	1.102	46%
	6	138	225	63%	198	221	12%	0.709	1.023	44%
	8	181	280	55%	336	313	-7%	0.537	0.898	67%
Pickup	4	96	150	56%	140	149	6%	0.686	1.003	46%
	6	136	191	40%	222	226	2%	0.637	0.848	33%
	8	169	282	67%	320	319	0%	0.527	0.879	67%

Figures 20 through 23 show that engines with more valves per cylinder deliver higher values of HP per CID. Improvements in HP per CID apply to all of the engines, regardless of the number of valves they have. Engines with *only* two valves per cylinder deliver substantially more horsepower per CID than they used to, typically about a 50 percent increase for the time period shown. The difference in HP and HP-per-CID is because the different vehicle types use different technologies. Figures 24 through 27 show that many cars are equipped with 4-valve engines; the other classes don't employ this technology as extensively.

**HP/CID by Number of Valves Per Cylinder  
Cars**

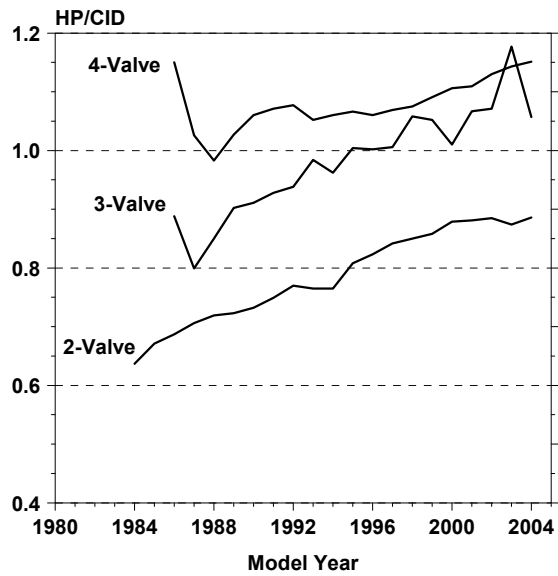


Figure 20

**HP/CID by Number of Valves Per Cylinder  
Vans**

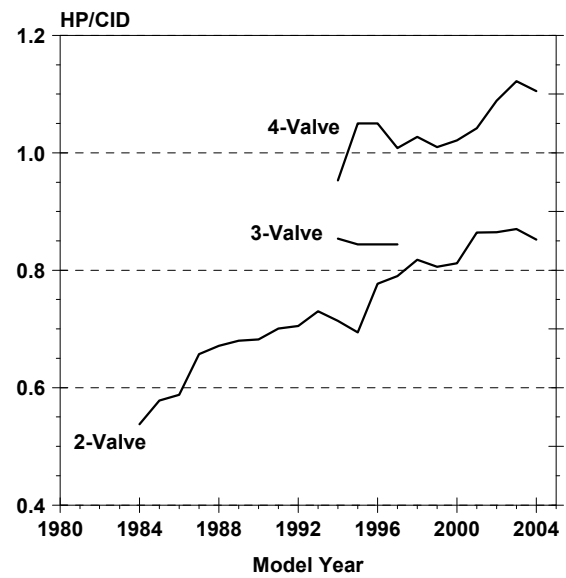


Figure 21

**HP/CID by Number of Valves Per Cylinder  
SUVs**

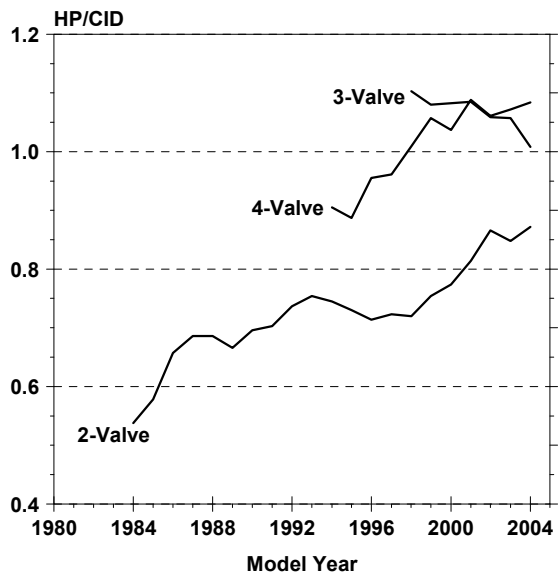


Figure 22

**HP/CID by Number of Valves Per Cylinder  
Pickups**

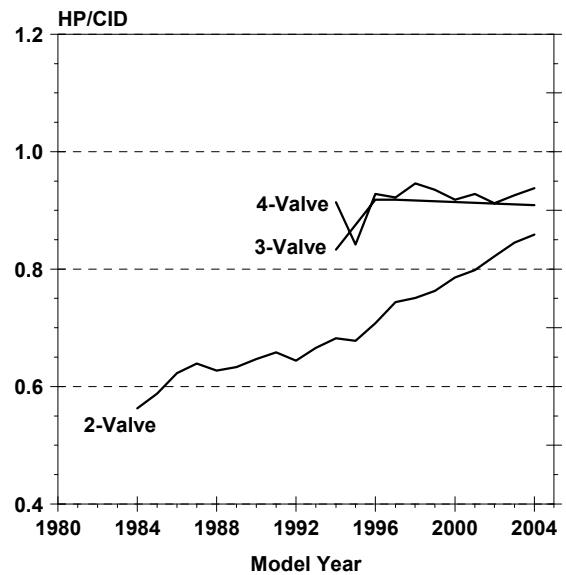


Figure 23

### Number of Valves per Cylinder Cars

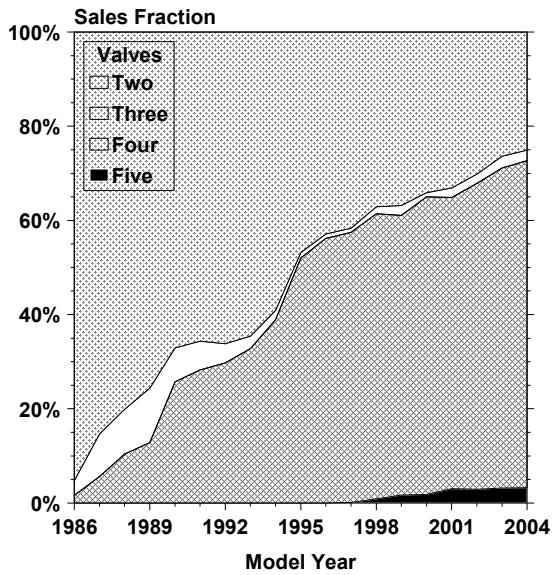


Figure 24

### Number of Valves per Cylinder Vans

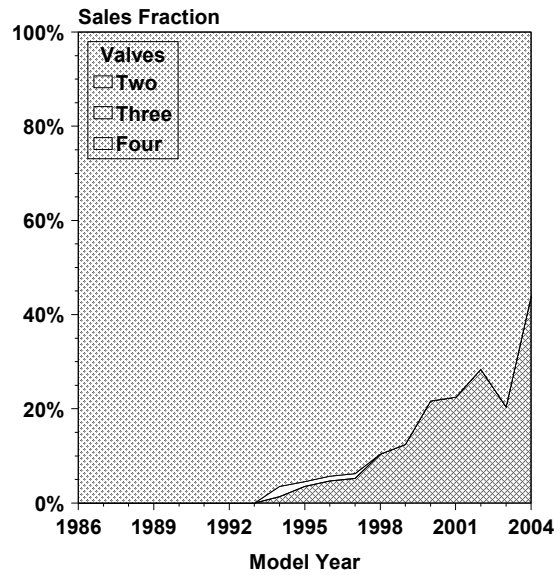


Figure 25

### Number of Valves per Cylinder SUVs

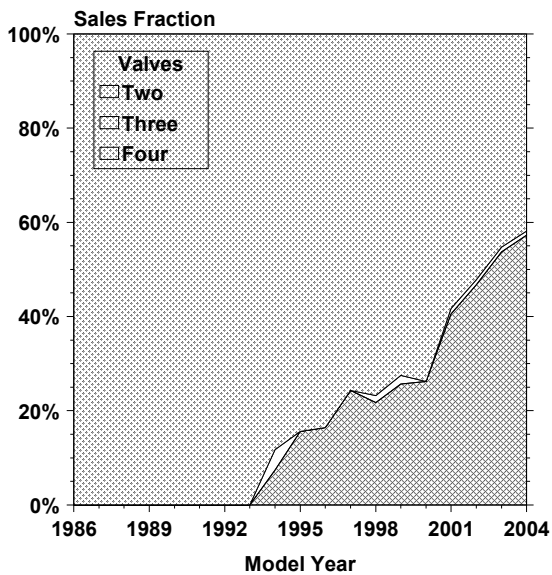


Figure 26

### Number of Valves per Cylinder Pickups

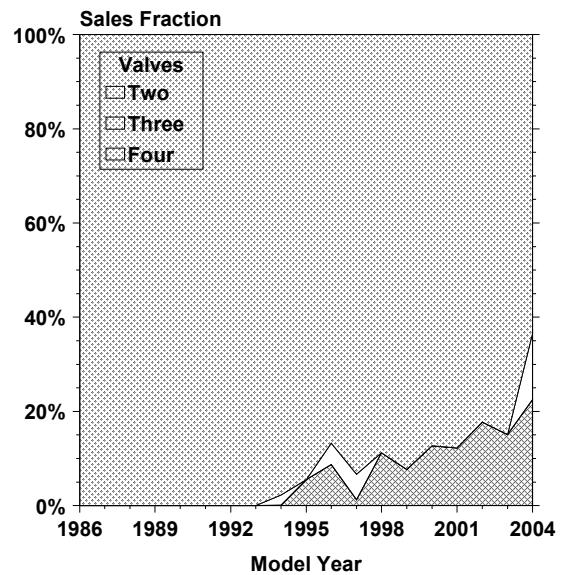


Figure 27



Vehicle performance improvements are due to increases in vehicle power to weight ratio. Obtaining increased power to weight in a time when weight is trending upwards implies that horsepower is increasing faster, which is the case. Increased horsepower can be obtained by increasing the engine's displacement, the engine's specific power (HP/CID), or both. Increasing specific power has been the primary driver for increases in performance for the past two decades.

For the current year fleet, specific power has been studied and engines been classified according to characteristics that exist in the database: (1) by the number of valves per cylinder, (2) by the manufacturer's fuel recommendation, and (3) by the presence or absence of an intake boost device such as a turbocharger or supercharger. Adding the presence or absence of means for varying the engine's valve timing would also be of interest, but the database currently does not include that information.

Figure 28 shows the results for the current fleet. HP/CID is associated with: (a) more valves per cylinder, (b) higher octane fuel, and (c) boost. The technical approaches result in a range from about 0.8 HP/CID to about 1.6 HP/CID.

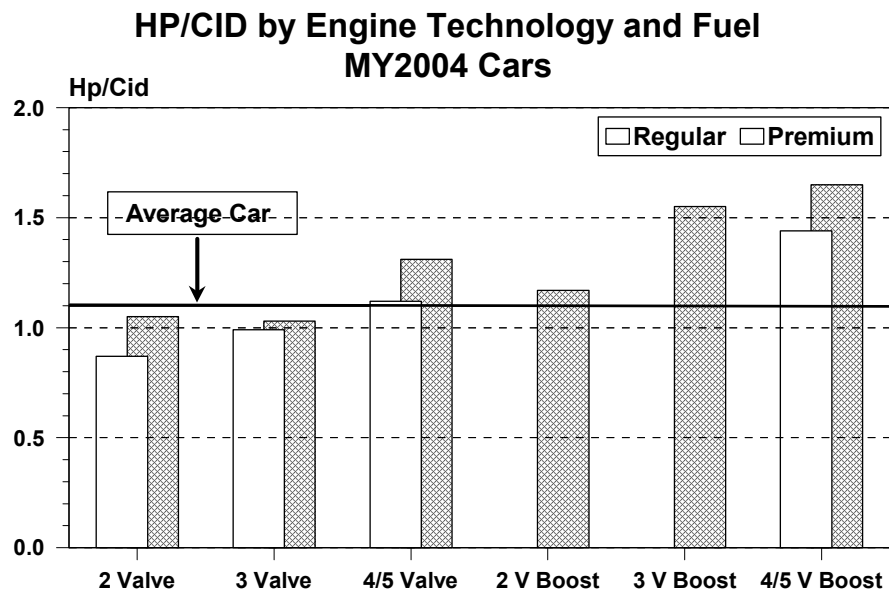


Figure 28

How important each technical option is to the overall fleet HP/CID value is shown in Table 10. The data used for this table and for Figure 28 excludes diesels and hybrids. Table 10 shows the incremental effect, on a sales weighted basis, of adding each technical option. Some of the technical options are not sales significant. The effect of the use of higher octane fuel cannot be discounted, because roughly 20 percent of the current car fleet is comprised of vehicles which use engines for which high octane fuel is recommended. By comparison only seven percent of this year's light trucks use premium fuel.

Engine technology which delivers improved specific power can be used in many ways ranging from reduced displacement and improved fuel economy at constant (or worse) performance, to increased performance and the same fuel economy at constant displacement. As an indication of how the different technologies are used, Figure 29 was generated, which is a plot of fuel economy and performance. The trend line shown reflects the fuel economy/performance tradeoff, on the average. By drawing a vertical line at the average performance, 10.0 seconds, 0-60 time, and a horizontal line at the average MPG, 29.7, the space is divided into four areas of better/worse performance crossed with better/worse fuel economy compared to the averages.

As Figure 29 shows, the technologies shown to result in improved specific power tend to be in the area where the performance is better than the average and the fuel economy is worse than the average, indicating that the technologies are being implemented in the direction of better vehicle performance, not better vehicle fuel economy. In terms of sales, roughly 40 percent of the data is in the Slower/Higher quadrant, 40 percent is in the Faster/Lower quadrant, and 10 percent is in each of the other two quadrants.

Table 10

**HP/CID and Sales Fraction by Fuel and Engine Technology**  
**MY2004 Cars**

		Number of Valves/ Cylinder						
Fuel	Boost	Two		Three		Four/Five		Total
		HP/CID	Sales Fraction	HP/CID	Sales Fraction	HP/CID	Sales Fraction	Sales Fraction
Regular	No Boost	0.87	22.8	0.99	0.0	1.12	56.2	79.0
Premium	No Boost	1.05	0.6	1.03	2.1	1.31	11.2	14.0
Regular	Boost	1.44	0.0	----	0.0	----	0.2	0.2
Premium	Boost	1.17	1.2	1.55	0.1	1.65	4.7	6.1
Other								0.8
Total			24.7		2.3		72.3	100.0

**55/45 Laboratory MPG vs 0 to 60 : MY2004 Cars**

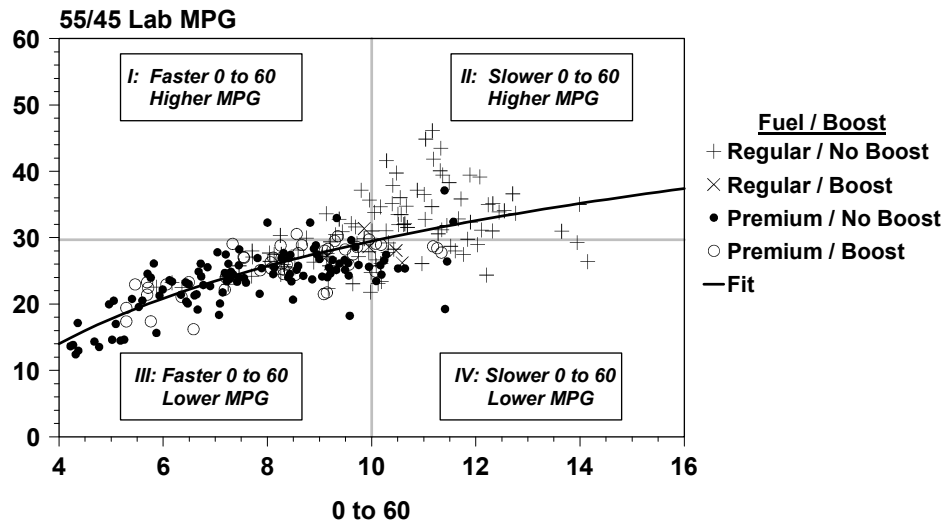


Figure 29

**Car Technology Penetration**  
**Years After First Significant Use**

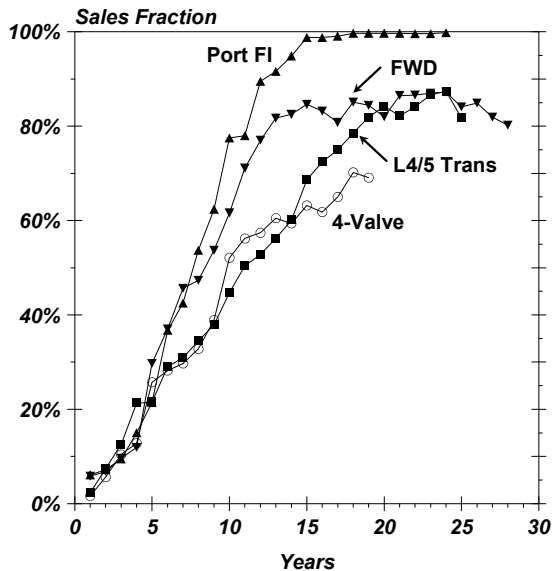


Figure 30

**Car Technology Penetration**  
**Years After First Significant Use**

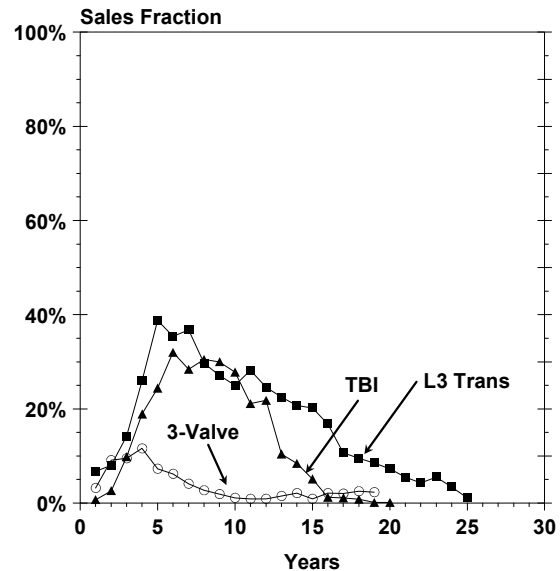


Figure 31

Figure 30 compares penetration rates for four passenger car technologies, namely port fuel injection (Port FI), front-wheel drive (FWD), four valves per cylinder (4-Valve), and four- and five-speed lockup transmissions (L4 and L5). This figure indicates that it may take a decade for a technology to prove itself and attain a sales fraction of 40 to 50 percent and as long as another five or ten years to reach maximum market penetration. It thus takes some time after the introduction of a new technology for it to fully penetrate the market.

A similar comparison of three technologies whose sales fraction peaked out at about 40 percent or less is shown in Figure 31. This figure shows that it often may take a number of years for technologies such as 3-valve-per-cylinder engines (3-valve), throttle body fuel injection (TBI), and lockup 3-speed (L3) transmissions to reach their maximum sales fraction, and, even then, use of these technologies may continue for a decade or longer. For the limited number of cases studied, the time a given technology needs to attain and then pass a market share of about 40 to 50 percent appears to be an indicator of whether it will ever attain a stabilized high level of market penetration.

## Laboratory 55/45 Fuel Consumption vs Inertia Weight MY1975 and MY2004 Cars

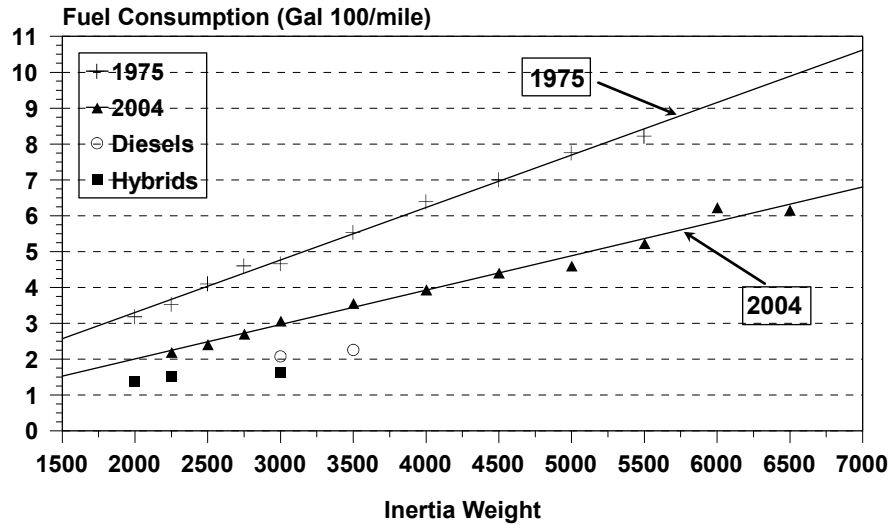


Figure 32

Cars and light trucks with conventional drivetrains have a fuel consumption and weight relationship which is well known and is shown on Figures 32 and 33. Fuel consumption goes up with weight. Vehicles with different propulsion systems, i.e., diesels and hybrids, may occupy a different place on such a fuel consumption and weight plot, as Figure 32 also shows. The lines in Figure 32 were prepared without using the diesel or the hybrid data.

It is likely that vehicles with technology similar to the car diesel and car hybrids currently in the fleet, but differing in weight, would have fuel consumption characteristics in line with the relationships implied by the few data points on Figure 32.

# Laboratory 55/45 Fuel Consumption vs Inertia Weight MY1975 and MY2004 Trucks

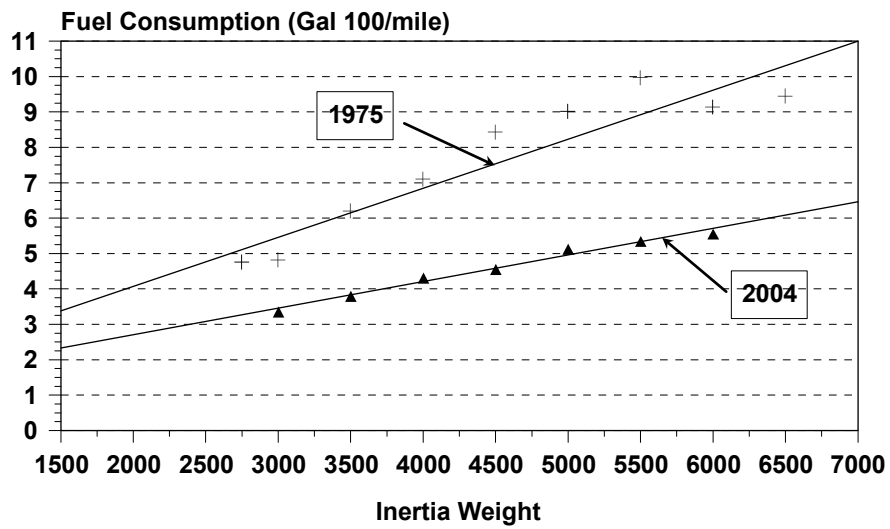


Figure 33

#### **IV. Trends by Vehicle Type and Size Class**

Table 1 shows that trucks are expected to account for about 48 percent of light-duty vehicles produced during model year 2004. In the next series of figures and tables, cars and light trucks are classified into five vehicle types: cars (i.e., coupes, sedans, and hatchbacks), station wagons, vans, sports utility vehicles (SUVs), and pickup trucks; and three vehicle sizes: small, midsize, and large. Note that vehicles have not been produced recently in the small van class. Appendixes E and F contains a series of tables describing light-duty vehicles at the vehicle size/type level of stratification in more detail.

Table 11 compares sales fractions by vehicle type and size for model years 1975, 1987, and 2004. Since 1975, the largest increases in sales fraction on this basis have been for midsize and large SUVs. These two classes are expected to account for over 24 percent of the vehicles built this year, compared to a combined total of about 1.3 and 4.2 percent in 1975 and 1987, respectively. Conversely, the largest sales fraction decrease has occurred for small cars which accounted for 40 percent of all light-duty vehicles produced in 1975 and over 43 percent in 1987.

While the small car sales fraction has consistently remained the largest of the 15 vehicle sizes and types, it has since decreased to about 23 percent. An overall decrease has occurred for large cars which accounted for about 15 percent of total light-duty sales in 1975 when they ranked third. Between then and 1987, their sales fraction dropped by about 40 percent.

Considering the five classes: cars, wagons, SUVs, vans, and pickups, since 1975 the biggest increase in market share has been for SUVs, up from less than two percent to more than 26 percent this year, and the biggest decrease has been for cars, down from over 70 percent to less than 50 percent.

Table 12 shows the lowest, average, and highest adjusted MPG performance in the five classes for the three selected years. Improvements in nearly every class are seen from 1975 to 1987. For 2004, the MPG performance is such that the large vehicles in some categories have better fuel economy than the corresponding entry for small vehicles in 1975.

Table 11

**Sales Fractions of MY1975, MY1987, and MY2004  
Light-Duty Vehicles by Vehicle Size and Type**

					Differences in Sales Fraction		
Vehicle Type	Size	Sales Fraction			From 1975	From 1975	From 1987
		1975	1987	2004	To 2004	To 1987	To 2004
Car	Small	40.0%	43.4%	22.9%	-17.1%	3.4%	-20.5%
	Midsize	16.0%	15.2%	15.8%	-0.2%	-0.8%	0.6%
	Large	15.2%	8.2%	9.2%	-6.0%	-7.0%	1.0%
	All	71.2%	66.8%	47.9%	-23.3%	-4.4%	-18.9%
Wagon	Small	4.7%	2.4%	2.3%	-2.4%	-2.3%	-0.1%
	Midsize	2.8%	2.4%	1.0%	-1.8%	-0.4%	-1.4%
	Large	1.9%	0.6%	0.4%	-1.5%	-1.3%	-0.2%
	All	9.4%	5.4%	3.7%	-5.7%	-4.0%	-1.7%
Van	Small	0.0%	0.8%	0.0%	0.0%	0.8%	-0.8%
	Midsize	3.0%	5.7%	6.4%	3.4%	2.7%	0.7%
	Large	1.5%	0.9%	0.6%	-0.9%	-0.6%	-0.3%
	All	4.5%	7.4%	7.0%	2.5%	2.9%	-0.4%
SUV	Small	0.5%	1.7%	1.4%	0.9%	1.2%	-0.3%
	Midsize	1.2%	3.8%	13.6%	12.4%	2.6%	9.8%
	Large	0.1%	0.4%	11.1%	11.0%	0.3%	10.7%
	All	1.8%	5.9%	26.1%	24.3%	4.1%	20.2%
Pickup	Small	1.6%	3.0%	1.1%	-0.5%	1.4%	-1.9%
	Midsize	0.5%	7.1%	2.0%	1.5%	6.6%	-5.1%
	Large	11.0%	4.4%	12.1%	1.1%	-6.6%	7.7%
	All	13.1%	14.5%	15.2%	2.1%	1.4%	0.7%
All	Trucks	19.4%	27.8%	48.3%	28.9%	8.4%	20.5%



Table 12

**Lowest, Average, and Highest Adjusted Fuel Economy  
by Vehicle Type and Size**

Vehicle Type	Size	1975			1987			2004		
		Lowest	Avg.	Highest	Lowest	Avg.	Highest	Lowest	Avg.	Highest
Car	Small	8.6	15.6	28.3	7.5	25.6	55.6	10.6	25.9	62.6
	Midsize	8.6	11.6	18.4	9.1	22.2	27.3	11.8	24.3	55.3
	Large	8.4	11.2	14.6	8.8	20.4	23.6	11.8	22.2	26.1
	All	8.4	13.4	28.3	7.5	24.0	55.6	10.6	24.6	62.6
Wagon	Small	11.8	19.1	24.1	16.7	26.2	33.0	17.2	26.2	40.5
	Midsize	8.4	11.3	25.0	19.1	21.9	27.3	17.8	22.9	28.5
	Large	8.4	10.2	12.8	18.7	19.0	19.1	18.6	18.9	19.1
	All	8.4	13.8	25.0	16.7	23.2	33.0	17.2	24.3	40.5
Van	Small	16.2	17.5	18.5	14.9	20.7	26.1	****	****	****
	Midsize	8.2	11.3	18.4	11.0	18.1	26.2	15.0	20.4	22.1
	Large	8.9	10.7	14.5	10.2	14.5	17.6	14.9	16.2	17.1
	All	8.2	11.1	18.5	10.2	17.8	26.2	14.9	20.0	22.1
SUV	Small	10.2	13.7	16.3	16.7	20.6	28.1	17.6	21.8	26.3
	Midsize	8.2	10.2	18.4	10.1	16.9	28.7	13.3	19.2	25.8
	Large	7.9	10.3	13.7	12.4	14.5	19.5	13.4	16.3	21.9
	All	7.9	11.0	18.4	10.1	17.6	28.7	13.3	17.9	26.3
Pickup	Small	13.0	19.2	20.8	12.8	22.1	27.9	17.3	19.5	24.2
	Midsize	17.8	17.9	18.0	14.4	21.6	36.4	16.4	19.0	25.7
	Large	7.6	11.1	18.5	11.0	15.1	20.5	10.8	16.5	24.1
	All	7.6	11.9	20.8	11.0	19.2	36.4	10.8	17.0	25.7
All	Cars	8.4	13.5	28.3	7.5	24.0	55.6	10.6	24.6	62.6
All	Trucks	7.6	11.6	20.8	10.1	18.4	36.4	10.8	17.9	26.3
All	Vehicles	7.6	13.1	28.3	7.5	22.1	55.6	10.6	20.8	62.6

Table 13

**Percent Change in Lowest, Average, and Highest Adjusted Fuel Economy  
by Vehicle Type and Size**

Vehicle Type	Size	From 1975 to 2004			From 1975 to 1987			From 1987 to 2004		
		Lowest	Avg.	Highest	Lowest	Avg.	Highest	Lowest	Avg.	Highest
Car	Small	23%	66%	121%	-12%	64%	96%	41%	1%	13%
	Midsize	37%	109%	201%	6%	91%	48%	30%	9%	103%
	Large	40%	98%	79%	5%	82%	62%	34%	9%	11%
	All	26%	84%	121%	-10%	79%	96%	41%	3%	13%
Wagon	Small	46%	37%	68%	42%	37%	37%	3%	0%	23%
	Midsize	112%	103%	14%	127%	94%	9%	-6%	5%	4%
	Large	121%	85%	49%	123%	86%	49%	0%	0%	0%
	All	105%	76%	62%	99%	68%	32%	3%	5%	23%
Van	Small	***	***	***	-7%	18%	41%	***	***	***
	Midsize	83%	81%	20%	34%	60%	42%	36%	13%	-15%
	Large	67%	51%	18%	15%	36%	21%	46%	12%	-2%
	All	82%	80%	19%	24%	60%	42%	46%	12%	-15%
SUV	Small	73%	59%	61%	64%	50%	72%	5%	6%	-5%
	Midsize	62%	88%	40%	23%	66%	56%	32%	14%	-9%
	Large	70%	58%	60%	57%	41%	42%	8%	12%	12%
	All	68%	63%	43%	28%	60%	56%	32%	2%	-7%
Pickup	Small	33%	2%	16%	-1%	15%	34%	35%	-11%	-12%
	Midsize	-7%	6%	43%	-18%	21%	102%	14%	-11%	-28%
	Large	42%	49%	30%	45%	36%	11%	-1%	9%	18%
	All	42%	43%	24%	45%	61%	75%	-1%	-10%	-28%
All	Cars	26%	82%	121%	-10%	78%	96%	41%	3%	13%
All	Trucks	42%	54%	26%	33%	59%	75%	7%	-2%	-27%
All	Vehicles	39%	59%	121%	0%	69%	96%	41%	-5%	13%

### Sales Fraction by Vehicle Type

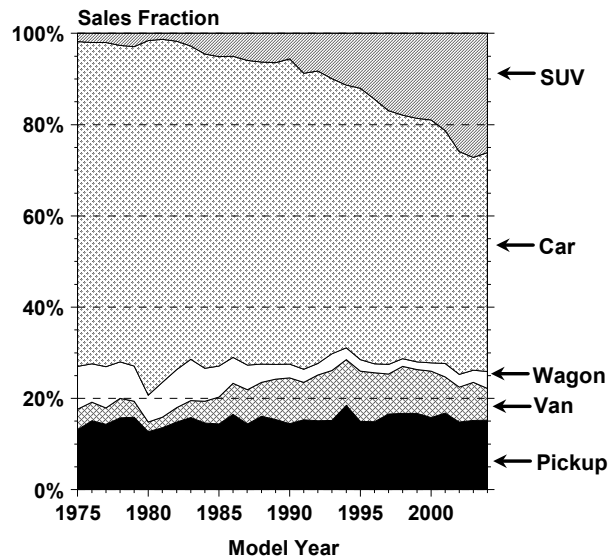


Figure 34

In Table 13, the percentage changes obtainable from the entries in Table 12 are presented. Average MPG for midsize cars and midsize wagons have improved over 100 percent since 1975. Overall, the across-the-board improvements in MPG seen in Table 12 are reproduced here. As shown in Figure 34, the sales fraction for SUVs has increased; the sales fractions for car and wagons declined; that for pickups has remained nearly constant; and vans may be showing a slight decline.

Figure 34 also can be read to show that pickup truck sales fraction has been roughly a constant, and that the combination of wagons and vans has also been roughly a constant for the past two decades. The market dynamic, therefore, has been and is between cars and SUVs with the former dropping in sales fraction and the latter increasing. If the SUV is the new family car, then a case could be made that the market shares for pickups, people movers (vans and wagons) and family cars have not changed much over time.

Figures 35 through 38 show trends in performance, weight, and adjusted fuel economy for cars, vans, SUVs, and pickups. Vehicles continue to get heavier. You have to go back 25 years to 1979 to find a heavier car fleet and this year's SUV and pickup fleets are the heaviest ever. On the average 2004 cars, vans, SUVs, and pickups are the most powerful and fastest ever. Their respective Ton-MPG values are also the highest.

### Fuel Economy and Performance Cars

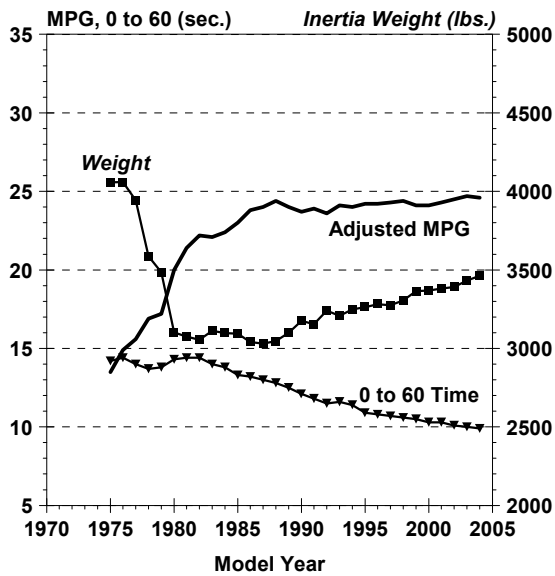


Figure 35

### Fuel Economy and Performance Vans

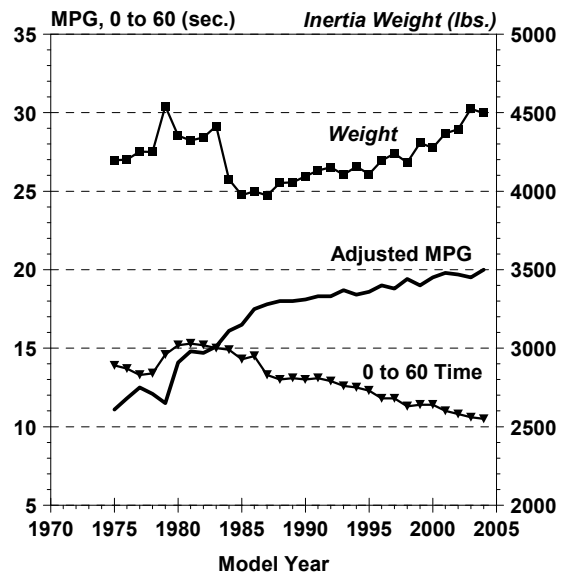


Figure 36

### Fuel Economy and Performance SUVs

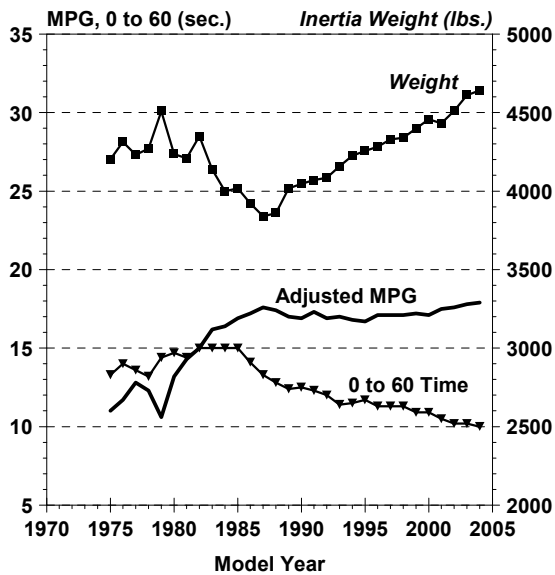


Figure 37

### Fuel Economy and Performance Pickups

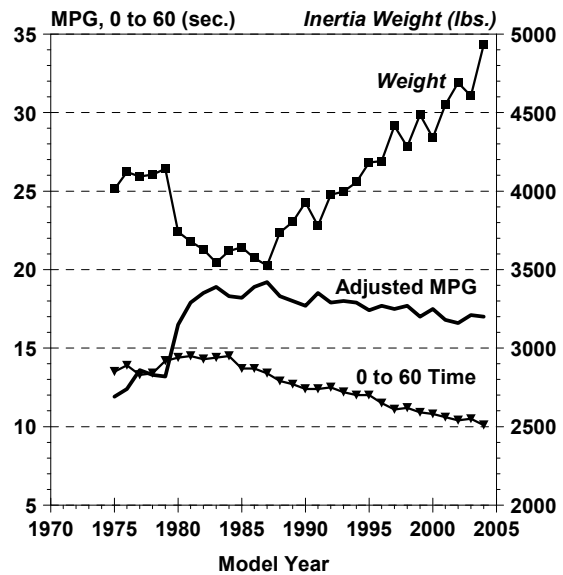


Figure 38

### Ton-MPG by Model Year

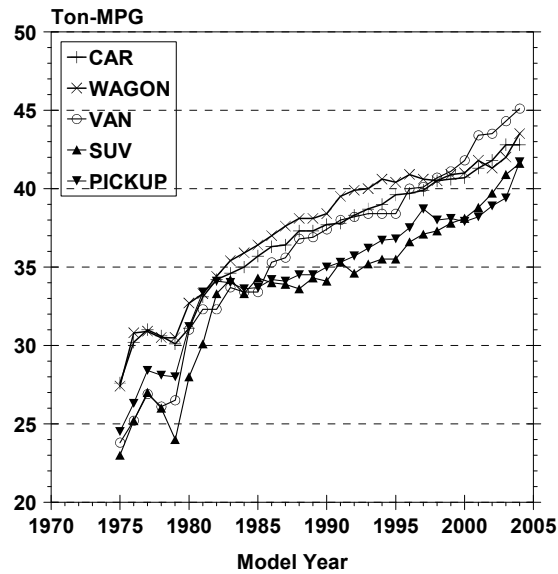


Figure 39

Figure 39 shows the five classes compared on a Ton-MPG basis. In this measure of efficiency, vans lead, cars and wagons are about the same and better than SUVs which are like pickups.

Another way to look at the performance of different types of vehicles is by a classification other than size: weight, for example. In Figures 40 through 43, the four classes of vehicles are shown by weight class. Model years 1975 and 2004 are shown. As with the earlier representation, fuel consumption is plotted versus weight. In each of the four classes, the fuel consumption is lower (better) now than it was in 1975, showing an efficiency improvement for all classes.

Figures 44 through 48 provide an indication of the market share of different weight vehicles within the different classes. Trends within classes are shown which underlie the increasing weight shown by the classes as a whole. Figures 46, 47, and 48 provide a picture of the trends within the light truck class shown on Figure 45.

**Laboratory 55/45 Fuel Consumption  
vs Inertia Weight  
MY1975 and MY2004 Cars**

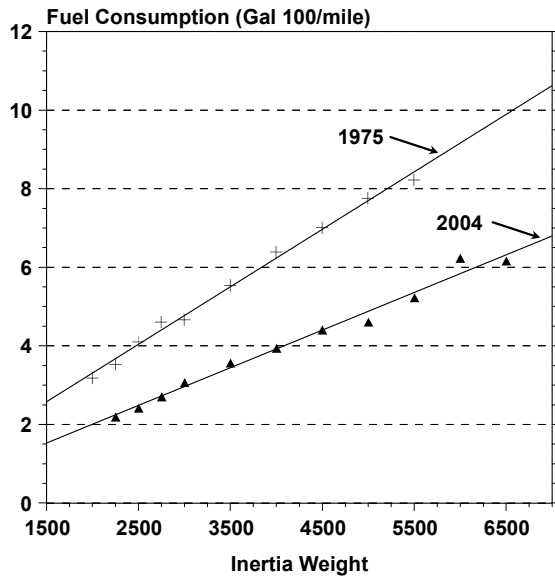


Figure 40

**Laboratory 55/45 Fuel Consumption  
vs Inertia Weight  
MY1975 and MY2004 Vans**

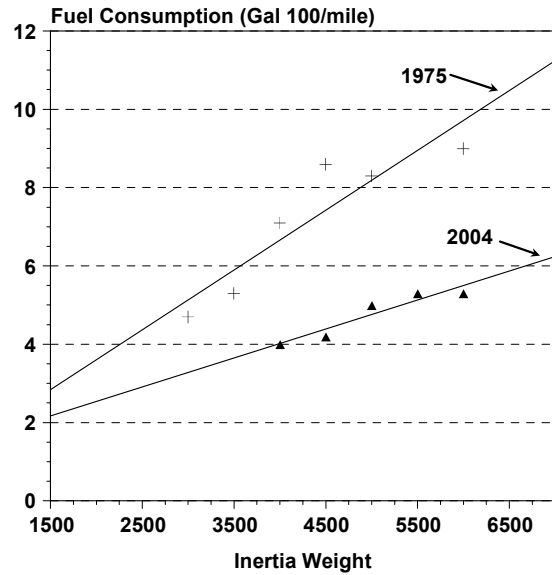


Figure 41

**Laboratory 55/45 Fuel Consumption  
vs Inertia Weight  
MY1975 and MY2004 SUVs**

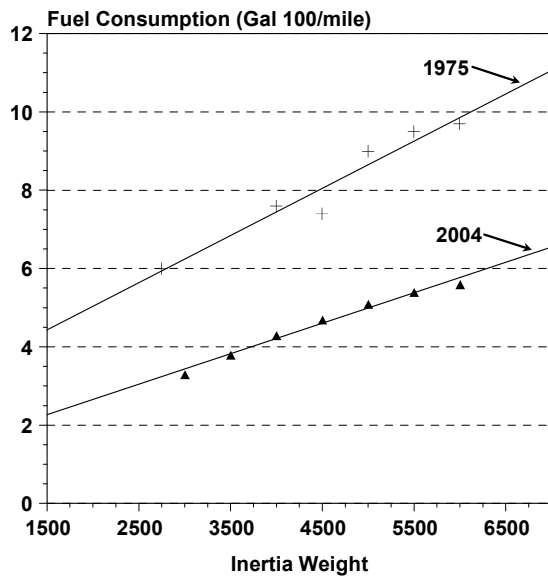


Figure 42

**Laboratory 55/45 Fuel Consumption  
vs Inertia Weight  
MY1975 and MY2004 Pickups**

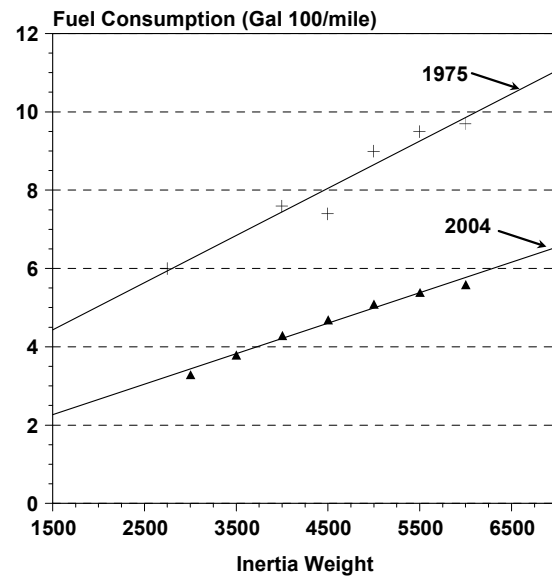


Figure 43

### Car Market Share by Inertia Weight Class (Three Year Moving Average)

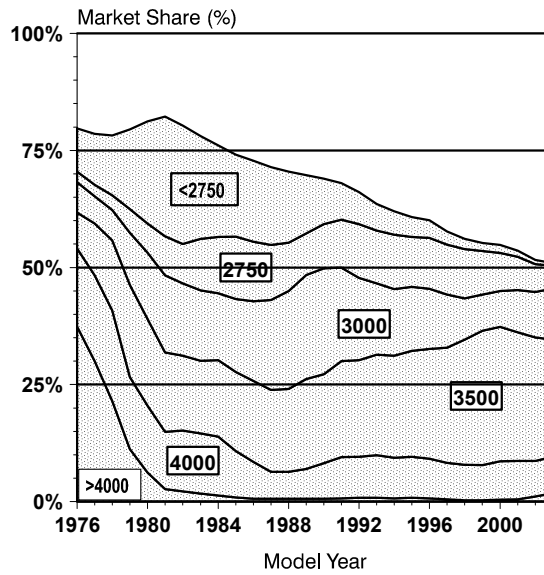


Figure 44

### Truck Market Share by Inertia Weight Class (Three Year Moving Average)

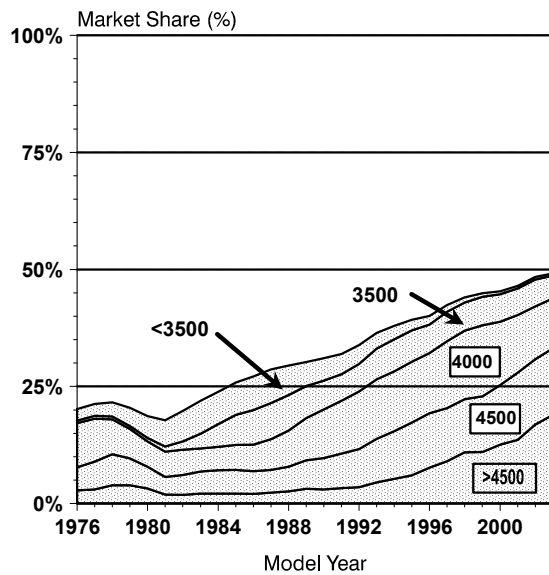
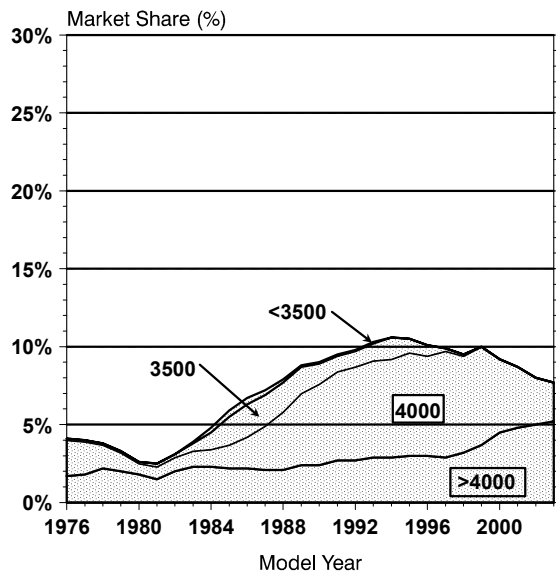


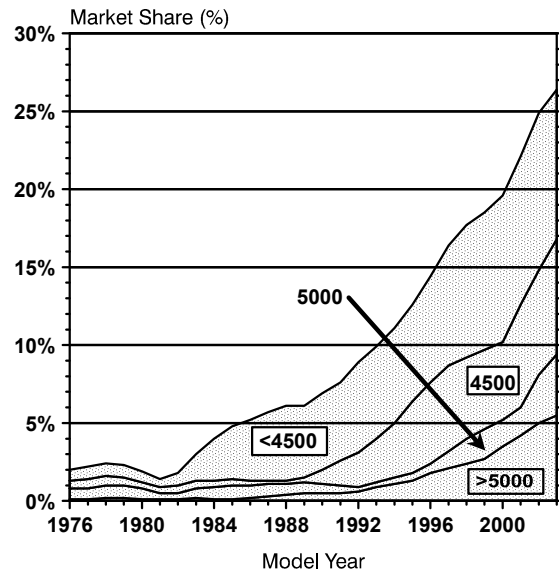
Figure 45

**Van Market Share by Inertia Weight Class  
(Three Year Moving Average)**



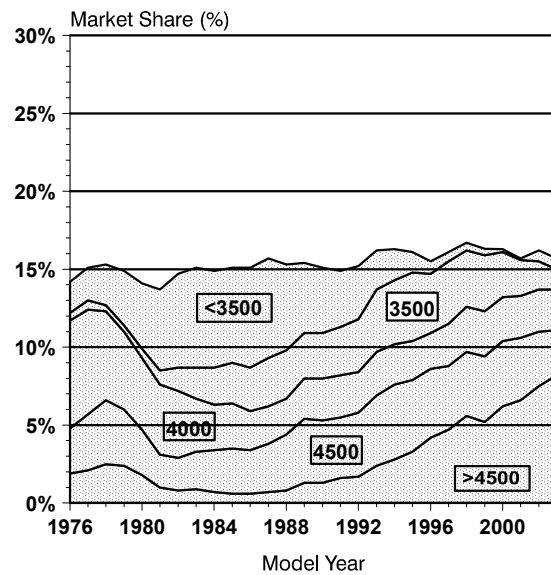
**Figure 46**

**SUV Market Share by Inertia Weight Class  
(Three Year Moving Average)**



**Figure 47**

**Pickup Market Share by Inertia Weight Class  
(Three Year Moving Average)**



**Figure 48**



## V. Marketing Groups

In its century of evolution, the automotive industry existed first as small, individual companies that relatively quickly went out of business or grew into larger corporations. In that context, the historic term 'manufacturer' usually meant a corporation that was associated with a single country that manufactured vehicles for sale in just that country and perhaps exported vehicles to a few other countries, too. Since the first report in this series was prepared, the nature of the automotive industry has changed substantially, and it has evolved into one in which global consolidations and alliances among heretofore independent manufacturers have become the norm, rather than the exception.

The reports in this series include analyses of fuel economy trends in terms of the whole fleet of cars and light trucks and in various subcategories of interest, e.g., by weight class, by size class, etc. In addition, there has been a treatment of trends by groups of manufacturers. Initially, these groups were derived from the "Domestic" and "Import" categories which are part of the automobile fuel economy standards categories. This classification approach evolved into a market segment approach in which cars were apportioned to a "Domestic," "European," and "Asian" category, with trucks classified as "Domestic" or "Imported." As the automotive industry has become more transnational in nature, this type of vehicle classification has become less useful.

In this report, trends by groups of manufacturers are now used instead of the domestic/imported type grouping to reflect the transnational and transregional nature of the automobile industry. To reflect the transition to an industry in which there are only a small number of independent companies, the fleet has been divided into segments consisting of three multiple partner "marketing groups," four groups with just a few partners, and an eighth catch-all group ("Others") that contains those manufacturers that have not been assigned to one of the seven major marketing groups. Taken together, the seven major marketing groups comprise 97 percent of the MY2004 new vehicle market in the U.S.

The seven major marketing groups used in this report are:

- 1) The General Motors Group includes GM and those companies which GM owns or has a substantial affiliation with, i.e., Opel, Saab, Isuzu, Fiat, Subaru, Suzuki, and Daewoo;
- 2) The Ford Motor Group includes Ford, Jaguar, Volvo, Land Rover, Aston Martin, and Mazda;
- 3) The DaimlerChrysler Group includes Chrysler, Mercedes Benz, Mitsubishi, Hyundai, and Kia;
- 4) The Toyota Group includes Toyota, Scion and Lexus;
- 5) The Honda Group includes Honda and Acura;
- 6) The Nissan Group include Nissan and Infiniti; and
- 7) The VW Group includes Volkswagen, Audi, SEAT, Skoda, and Bentley.

It is expected that these marketing groups will continue and perhaps expand as further consolidations in the automotive industry occur.

Table 14 compares laboratory fuel economy values for the marketing groups described above for model year 2004 with the overall fleet average. The GM, Ford, and DC Groups are all at or above the fleet average in Percent Truck and below the overall fleet average in MPG, and the Toyota, Honda, and VW Groups are below the fleet average in Percent Truck and are above the overall fleet average in MPG. The Nissan Group is like the GM, Ford, and DC groups on this basis of comparison.

A more detailed comparison of model year 2004 laboratory fuel economy, by vehicle type and size, is presented in Table 15. By marketing group and vehicle type for MY2004, the Honda Marketing Group achieves the highest fuel economy for cars and SUVs and the Toyota Marketing Group for wagons, vans and pickups.

Table 16 is a companion table to Table 15 using adjusted MPG data. More information stratified by marketing group can be found in Appendix M.

Figures 49 through 55 compare model year 1975 to 2004 percent truck, laboratory 55/45 fuel economy for car, trucks, and both cars and trucks for the GM, Ford, DaimlerChrysler, Toyota, Honda, Nissan, and VW marketing groups, respectively. For all seven of these marketing groups, combined car and truck fuel economy is lower now than it was in 1987.

Because the absolute values of fuel economy differ somewhat across the marketing groups, a separate presentation of the fuel economy trends was prepared by normalizing the fuel economy for each Group by the fuel economy in 1987, the year in which MPG for the fleet as a whole was the highest. In this way, a relative measure of how each group, compared to its own value in 1987, can be seen. The results are shown in Figures 56 through 62.

All the marketing groups are lower now than they were in 1987. The declines are very similar, except for the VW Group which has not declined as much, due at least in part to their small light truck share shown on Figure 55.

Table 14

**MY2004 Laboratory 55/45 Fuel Economy  
by Marketing Group**

Entire Group Average	<-- FUEL ECONOMY -->			Percent Truck
	Cars	Trucks	Both	
GM	29.1	20.5	24.1	49%
Ford	25.7	20.1	22.0	59%
DC	27.5	20.9	23.9	48%
Toyota	32.6	22.6	27.0	47%
Honda	32.4	24.6	28.6	42%
Nissan	28.3	21.1	24.1	51%
VW	29.1	19.2	27.8	9%
Others	25.8	20.1	24.0	26%
All/Fleet Average	28.7	20.9	24.4	48%

Table 15

**Model Year 2004 Laboratory 55/45 Fuel Economy by Marketing Group**

VEHICLE	TYPE/SIZE	GM	Ford	DC	Toyota	Honda	Nissan	VW	Others	All
Cars	Small	30.9	27.2	29.0	35.6	37.6	28.8	29.9	26.1	30.3
Cars	Midsize	28.3	25.9	26.7	30.8	29.9	27.6	27.3	25.1	28.4
Cars	Large	27.4	24.0	26.3	27.4	---	---	22.3	23.8	26.0
Cars	All	29.1	25.6	27.8	32.3	32.4	28.3	29.1	25.8	28.8
Wagons	Small	32.2	28.9	27.5	35.8	---	---	31.0	25.8	30.8
Wagons	Midsize	27.7	26.8	23.7	---	---	---	25.8	---	26.8
Wagons	Large	---	---	22.1	---	---	---	---	---	22.1
Wagons	All	30.2	26.8	25.6	35.8	---	---	27.7	25.8	28.5
All Cars	Small	31.0	27.2	28.7	35.7	37.6	28.8	30.0	26.1	30.3
All Cars	Midsize	28.3	26.1	26.6	30.8	29.9	27.6	26.9	25.1	28.3
All Cars	Large	27.4	24.0	25.1	27.4	---	---	22.3	23.8	25.8
All Cars	All	29.1	25.7	27.5	32.6	32.4	28.3	29.0	25.8	28.7
Vans	Small	---	---	---	---	---	---	---	---	---
Vans	Midsize	23.9	22.3	23.6	25.6	24.2	24.7	---	---	23.9
Vans	Large	19.1	18.9	---	---	---	---	---	---	19.0
Vans	All	22.7	21.7	23.6	25.6	24.2	24.7	---	---	23.4
SUVs	Small	25.9	---	21.0	29.6	---	---	---	---	25.6
SUVs	Midsize	23.6	20.7	22.0	23.3	24.7	22.0	---	21.8	22.5
SUVs	Large	19.4	18.4	18.3	17.8	---	19.3	19.2	19.5	19.1
SUVs	All	20.3	19.7	21.1	23.0	24.7	21.1	19.2	20.1	21.0
Pickups	Small	26.4	---	---	22.4	---	---	---	---	23.0
Pickups	Midsize	22.1	22.9	21.0	---	---	---	---	---	22.3
Pickups	Large	19.7	19.3	18.2	18.6	---	19.7	---	---	19.3
Pickups	All	20.0	20.0	18.9	20.4	---	19.7	---	---	19.9
Trucks	All	20.5	20.1	20.9	22.6	24.6	21.1	19.2	20.1	20.9
All	All	24.1	22.0	23.9	27.0	28.6	24.1	27.7	24.0	24.4

Table 16

**Model Year 2004 In-use Adjusted 55/45 Fuel Economy by Marketing Group**

VEHICLE TYPE/SIZE		GM	Ford	DC	Toyota	Honda	Nissan	VW	Others	All
Cars	Small	26.5	23.3	24.7	30.4	32.1	24.6	25.5	22.4	25.9
Cars	Midsize	24.3	22.2	22.8	26.3	25.6	23.6	23.4	21.6	24.3
Cars	Large	23.5	20.5	22.5	23.4	---	---	19.1	20.4	22.2
Cars	All	24.9	21.9	23.8	27.6	27.7	24.2	24.9	22.1	24.6
Wagons	Small	27.4	24.7	23.5	30.5	---	---	26.5	22.1	26.2
Wagons	Midsize	23.7	22.8	20.3	---	---	---	22.1	---	22.9
Wagons	Large	---	---	18.9	---	---	---	---	---	18.9
Wagons	All	25.8	22.9	21.8	30.5	---	---	23.7	22.1	24.3
All Cars	Small	26.6	23.3	24.5	30.4	32.1	24.6	25.6	22.4	25.9
All Cars	Midsize	24.2	22.3	22.8	26.3	25.6	23.6	23.0	21.6	24.2
All Cars	Large	23.5	20.5	21.5	23.4	---	---	19.1	20.4	22.1
All Cars	All	24.9	22.0	23.5	27.8	27.7	24.2	24.8	22.1	24.6
Vans	Small	---	---	---	---	---	---	---	---	---
Vans	Midsize	20.5	19.1	20.2	21.9	20.7	21.1	---	---	20.4
Vans	Large	16.3	16.1	---	---	---	---	---	---	16.2
Vans	All	19.4	18.6	20.2	21.9	20.7	21.1	---	---	20.0
SUVs	Small	22.1	---	17.9	25.2	---	---	---	---	21.8
SUVs	Midsize	20.2	17.7	18.8	19.9	21.1	18.8	---	18.7	19.2
SUVs	Large	16.6	15.7	15.6	15.2	---	16.5	16.4	16.7	16.3
SUVs	All	17.3	16.9	18.0	19.6	21.1	18.0	16.4	17.2	17.9
Pickups	Small	22.5	---	---	19.1	---	---	---	---	19.5
Pickups	Midsize	18.8	19.6	18.0	---	---	---	---	---	19.0
Pickups	Large	16.8	16.4	15.5	15.8	---	16.8	---	---	16.5
Pickups	All	17.1	17.0	16.1	17.4	---	16.8	---	---	17.0
Trucks	All	17.5	17.1	17.8	19.2	21.0	18.0	16.4	17.2	17.9
All	All	20.6	18.8	20.4	23.0	24.4	20.6	23.7	20.6	20.8

### GM Marketing Group Fuel Economy by Model Year

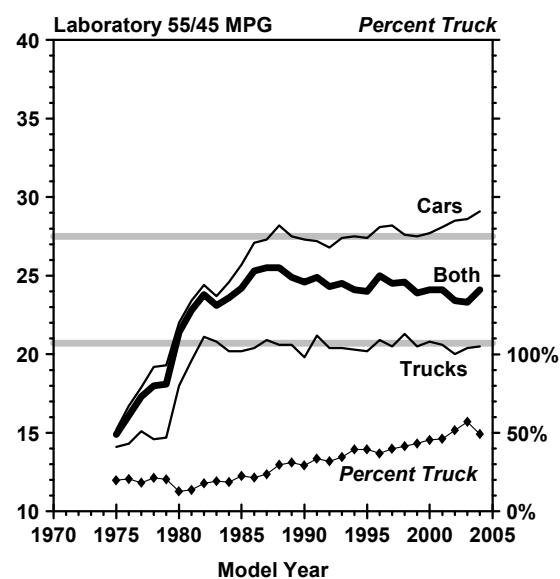


Figure 49

### Ford Marketing Group Fuel Economy by Model Year

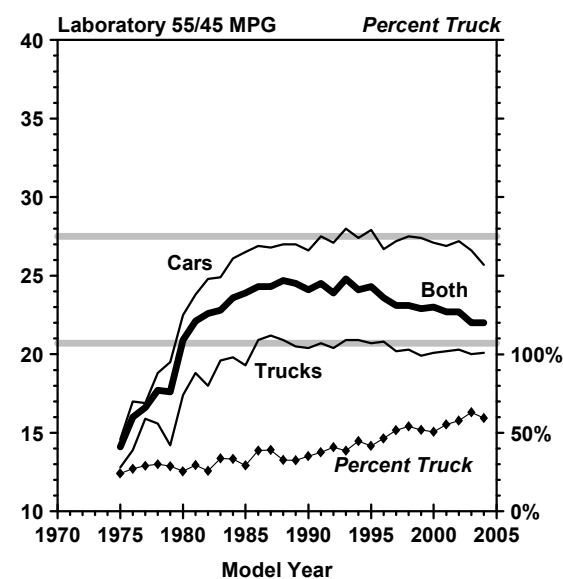


Figure 50

### DaimlerChrysler Marketing Group Fuel Economy by Model Year

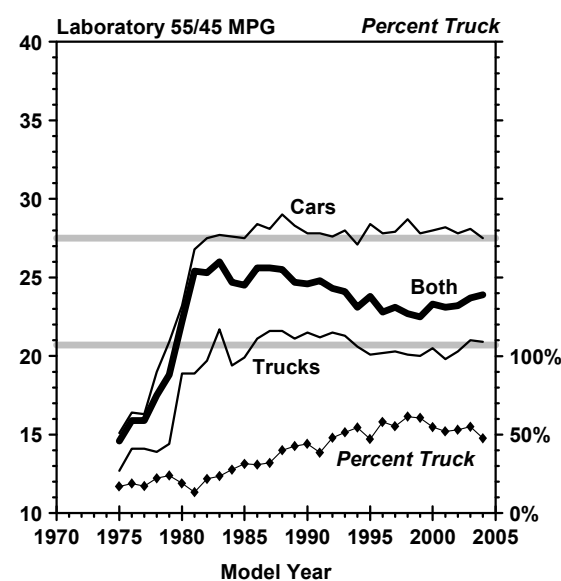


Figure 51

### Toyota Marketing Group Fuel Economy by Model Year

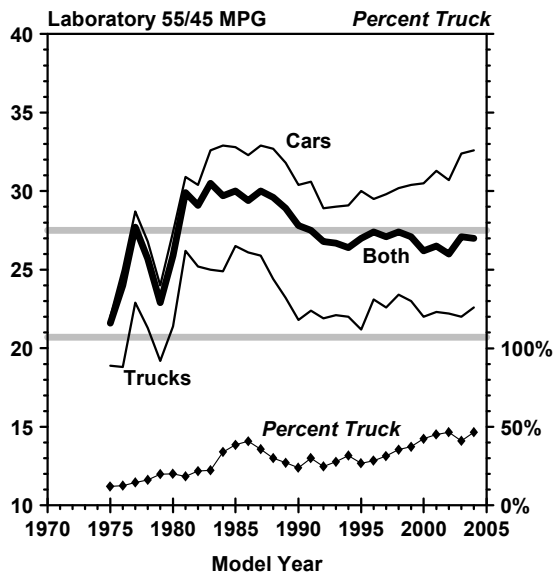


Figure 52

### Honda Marketing Group Fuel Economy by Model Year

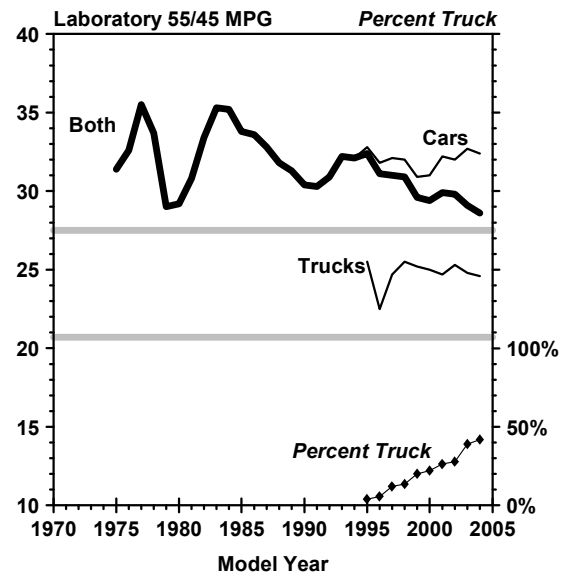


Figure 53

### Nissan Marketing Group Fuel Economy by Model Year

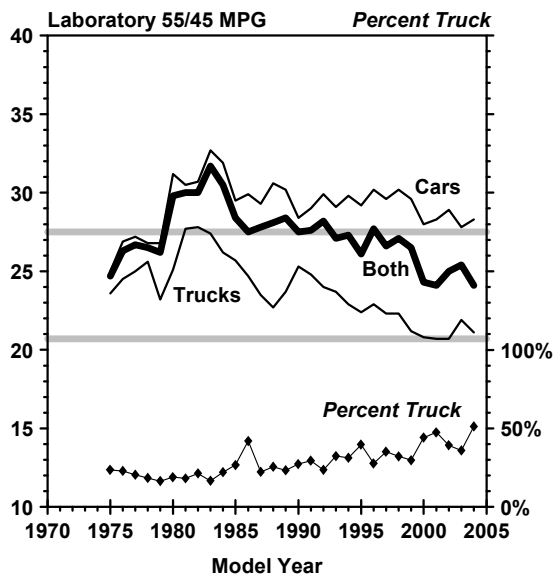


Figure 54

### VW Marketing Group Fuel Economy by Model Year

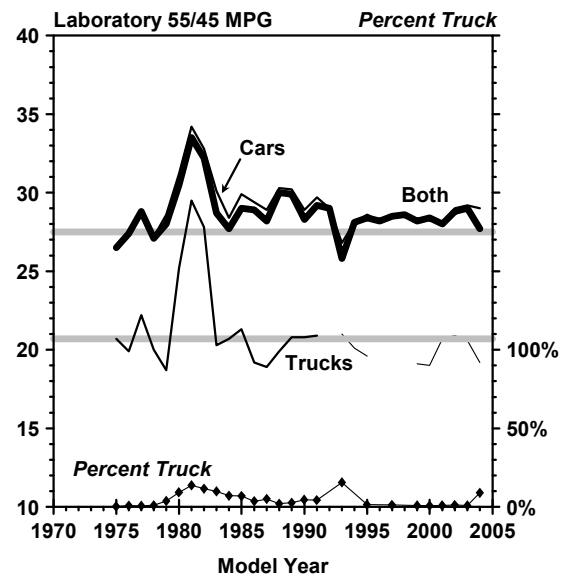


Figure 55

### Normalized Fuel Economy GM Marketing Group

(Both Cars and Trucks)

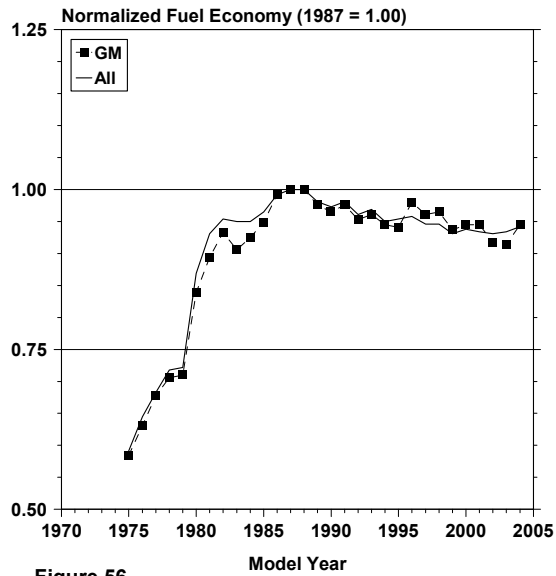


Figure 56

### Normalized Fuel Economy Ford Marketing Group

(Both Cars and Trucks)

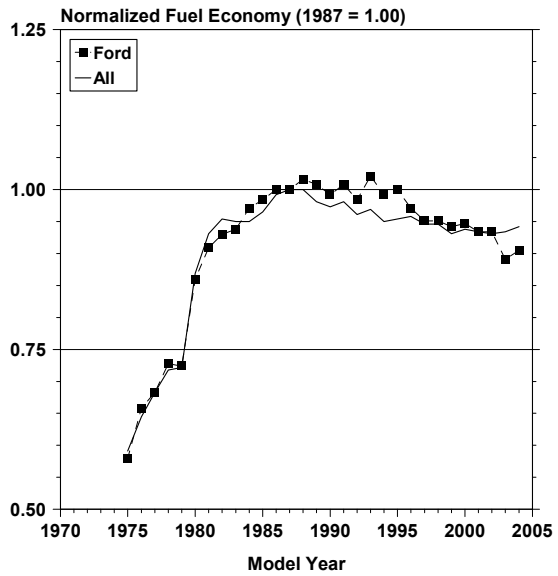


Figure 57

### Normalized Fuel Economy DC Marketing Group

(Both Cars and Trucks)

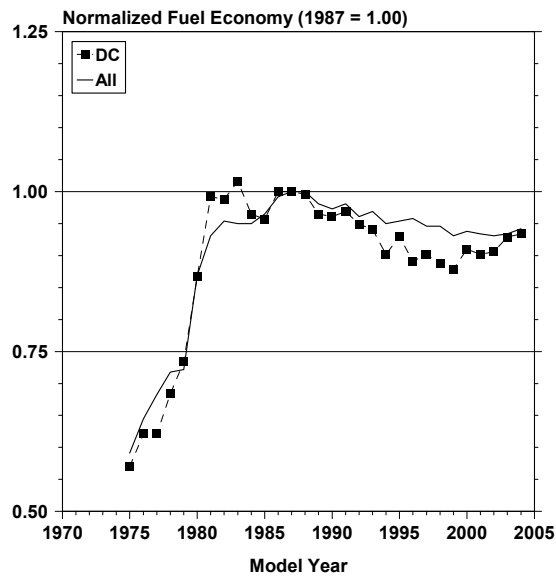


Figure 58



### Normalized Fuel Economy Toyota Marketing Group

(Both Cars and Trucks)

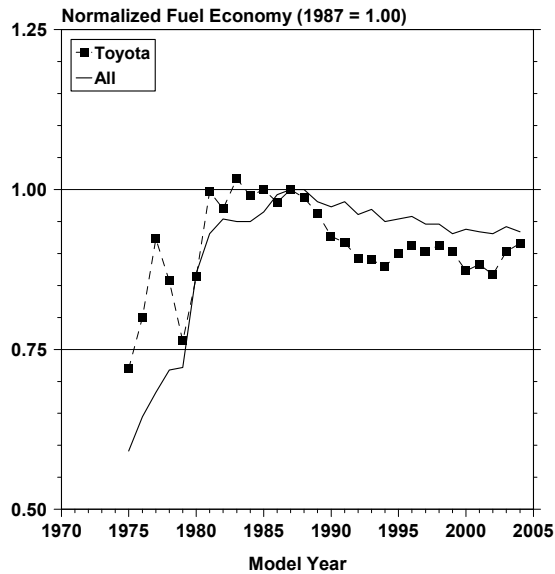


Figure 59

### Normalized Fuel Economy Honda Marketing Group

(Both Cars and Trucks)

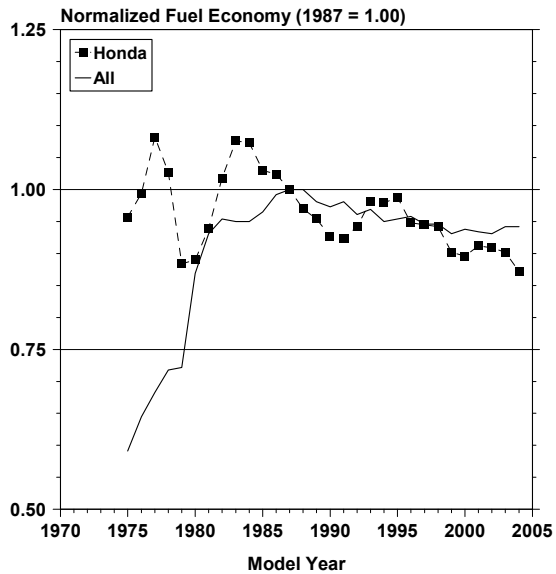


Figure 60

### Normalized Fuel Economy Nissan Marketing Group

(Both Cars and Trucks)

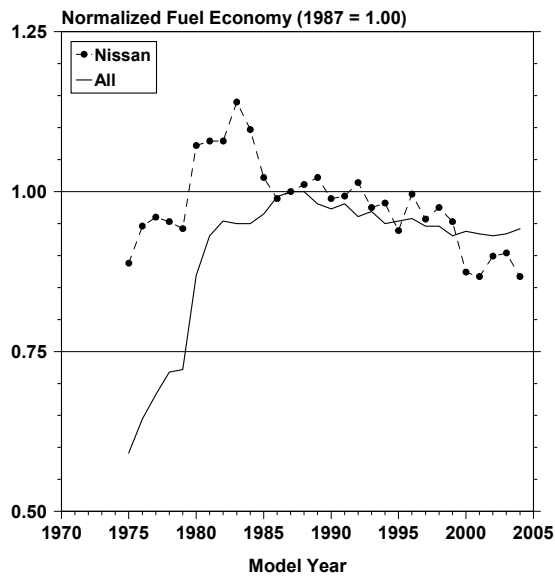


Figure 61

### Normalized Fuel Economy VW Marketing Group

(Both Cars and Trucks)

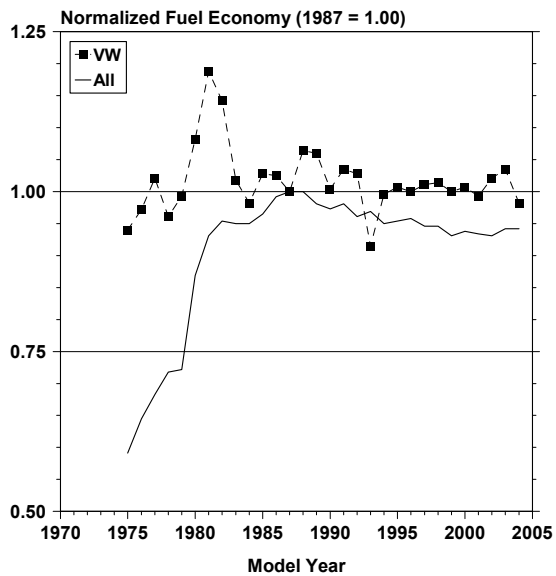


Figure 62

## **VI. Characteristics of Fleets Comprised of Existing Fuel-Efficient Vehicles**

This section is limited to a discussion of hypothetical fleets of vehicles comprised of fuel-efficient vehicles and the fuel economy and other characteristics of those fleets.

This section includes a discussion of some of the technical and engineering factors that affect fleet fuel economy. It does not attempt to evaluate either the benefits or the costs of achieving various fuel economy levels. In addition, the analysis presented here also does not attempt to evaluate the marketability or the public acceptance of any of the hypothetical fleets that result from the scenarios studied and discussed below.

As stated earlier in this report, the fuel economy of the combined car and light truck fleet has decreased from a peak value achieved in 1987 with much of this decline attributable to the increased market share of light trucks.

There are several different ways to look at the potential for improved fuel economy from the light-duty vehicle fleet. Many of these approaches utilize projections of more fuel efficient technologies that are not in the fleet today. As an example, a fleet made up of a large fraction of fuel cell vehicles could be considered. Such projections can be associated with a good deal of uncertainty, since uncertainty in the projections of market share compound with uncertainties about the fuel economy performance of yet uncommercialized technology. These uncertainties can be thought of as a combination of technical risk, i.e., can the technology be developed and mass produced?, and market risk, i.e., will people buy vehicles with the improved fuel economy?

One general approach used in this report is to consider only the fuel economy performance of those technologies which exist in today's fleet. This eliminates uncertainty about the feasibility and production readiness of the technology and reduces or eliminates the technical risk but does not treat market risk, as mentioned above. Therefore, the analysis can be thought of as the fuel economy potential now in the fleet, with no new technologies added, if the higher MPG choices available were to be selected.

There is a wide distribution of fuel economy. Because of the interest in the high end of this spectrum, this portion of the database was examined in more detail using a "best in class" (BIC) technique. The BIC analysis is not new, in fact it was one of the methods used to investigate future fleet MPG capability when the original fuel economy standards were set.

In any group or class of vehicles there will be a distribution of MPG performance, and the "best in class" method relies on that fact. The analysis involves dividing the fleet of vehicles into classes, selecting a set of representative high MPG "role model"

vehicles from each class, and then calculating the average characteristics of the resultant fleet using the same relative sales proportions as in the baseline fleet.

One potential problem with a BIC analysis is that the high MPG cars used in the analysis may be unusual in some way – so unusual that the hypothetical fleet made up of them may be deficient in some other attributes considered desirable by vehicle buyers. Because the BIC analysis is also sensitive to the selection of the best vehicles, three different procedures were used to select the role models.

Two of these selection procedures use the EPA car size classes (which for cars are the same as those used for the EPA/DOE *Fuel Economy Guide*) and the truck type/size classes described previously in this report. Note that this classification system includes nine car and nine truck classes and, for this model year, one of these eighteen classes is not represented (Small Vans). The third best-in-class role model selection procedure is based on using the vehicle inertia weight classes used for EPA's vehicle testing and certification process.

The advantage of using and analyzing data from the best-in-size class methods is that if the sales proportions of each class are held constant, the sales distribution of the resultant fleet by *vehicle type and size* does not change. This means that the size of the average vehicle does not change a lot. Similarly, there also is an advantage in using the inertia weight classes to determine the role models, since, if the sales proportions in each inertia weight class are held constant, the sales distribution of the resultant fleet by *weight* does not change, and in this case, the average weight remains the same.

One way of performing a best-in-class (BIC) analysis is to use as role models the four nameplates with the highest fuel economy in each size class. (See Tables N-1 and N-2 in Appendix N.) Under this procedure, all vehicles in a class with the same nameplate are included as role models regardless of vehicle configuration. Each role model nameplate from each class was assigned the same sales weighting factor, but the original sales weighting distribution for different vehicle configurations within a given nameplate (e.g., transmission type, engine size, and/or drive type) was retained. The resulting values were used to recalculate the fleet average values using the same relative proportions in each of the size classes that constitute the fleet.

In cases where two identical vehicles differ by only one characteristic but have slightly different nameplates (such as the two-wheel drive Chevrolet C1500 and the four-wheel drive Chevrolet K1500 pickups), both are considered to have the same nameplate. Conversely, in the cases where there are technically identical vehicles with different nameplates (e.g., the Buick LeSabre and Pontiac Bonneville sedans), only one representative vehicle nameplate was used in the BIC analysis.

The second best-in-class role model selection procedure involves selecting as role models the best dozen vehicles in each size class with each vehicle configuration considered separately. Tables N-3 and N-4 in Appendix N give listings of the representative vehicles used in this method. As with the previous procedure, in cases where technically identical vehicle configurations have different nameplates, only one representative vehicle was used. Under this best-in-class method, the sales data for each role model vehicle in each class was assigned the same value, and the resulting values were used to re-calculate the fleet values again using the same relative proportions in each of the size classes that constitute the fleet.

The third best-in-class procedure involves selecting as role models the best dozen vehicles in each weight class. As with the previous method, each vehicle configuration was considered separately. (See Tables N-5 and N-6 in Appendix N for a listing of the vehicles used in this analysis.) It should be noted that some of the weight classes have less than a dozen representative vehicles. In addition, as in the previous two best-in-class methods, where technically identical vehicle configurations with different nameplates are used, only one representative vehicle was included. As with the two best-in-size class methods, the sales data for each role model vehicle in each class was assigned the same value, and the resulting values were used to recalculate the fleet values again using the same relative proportions in each of the size classes that constitute the fleet.

Tables 17 to 19 compare, for cars, trucks, and both cars and trucks, respectively, the results of the best-in-class analysis with actual average data for model year 2004. As discussed earlier, for the size class scenarios, the percentage of vehicles that are small, midsize, or large are the same as for the baseline fleet, and in the weight class scenarios, the average weight of the BIC data sets is the same as the actual one. Average interior volume for cars in the BIC weight class analysis is about the same as the overall average (111 vs. 110 cu. ft.).

The small differences in interior volume between the size class scenarios and the actual vehicle fleet can be attributed to the fact that, within a size class, there is considerable variation in interior volume (i.e., not all vehicles in each size class have exactly the same interior volume).

Under all of the best-in-class (BIC) scenarios, the vehicles used for the BIC analysis have less powerful engines, have slower 0-to-60 acceleration times, and are more likely to be equipped with manual transmissions than the entire fleet as a whole. For trucks, the BIC data set vehicles make greater use of front-wheel drive.

For both cars and trucks, the "Best 12 Vehicles" in Size Class scenario results in significantly higher fuel economy than the actual fleet, but the vehicles in the BIC size set are lighter than their counterparts from the other scenarios. Depending on the scenario chosen, for model year 2004, cars could have achieved from 11 to 15 percent better fuel economy than they did. Similarly, trucks could have achieved from 9 to 18 percent better fuel economy, and the combined car and truck fleet could have been 9 to 16 percent better.

The best-in-class analyses can be thought of as the MPG potential now in the fleet with no new technologies added, if the higher MPG choices available were selected. As such, the best-in-class analyses provide a useful reference point indicating the variation in fuel economy levels that result in large part from consumer preferences as opposed to technological availability.

One of the characteristics of the best-in-class analysis is that it typically results in a hypothetical fleet of vehicles which has a larger fraction of manual transmissions than today's fleet does. This is a consequence of the methodology. There has been some discussion of the practicality of such a fleet of vehicles, especially for the U.S. market, where automatic transmissions dominate, and have done so for several years.

Another general approach for determining potential fuel economy improvement is to study the relationships between vehicle technology improvements, vehicle acceleration times, vehicle size, and vehicle weight.

Table 17

**Best in Class Results: Model Year 2004 Cars**

Vehicle Characteristic	Selection Basis	Actual Data	Size Class	Size Class	Weight Class
	Selection Criteria	All Cars	Best 4 Nameplates	Best 12 Vehicles	Best 12 Vehicles
Percent of Car Fleet Included		100%	28%	35%	18%
Fuel Economy	Lab. 55/45	28.7	32.9	32.8	32.0
	Adjusted City	21.6	24.8	24.8	24.2
	Adjusted Highway	29.6	33.5	33.3	32.6
	Adjusted 55/45	24.6	28.1	28.0	27.4
Vehicle Size	Weight (lb)	3462	3122	3171	3462
	Volume (Cu. Ft.)	110	108	109	111
Engine	CID	170	139	139	144
	HP	183	155	149	163
	HP/CID	1.096	1.135	1.099	1.145
	HP/Wt	0.0521	0.0490	0.0467	0.0466
	Pct. Four Valve/Cyl.	69%	86%	82%	94%
Performance	0 to 60 Time (sec.)	9.9	10.3	10.6	10.6
	Top Speed (mph)	133	127	125	126
	Ton-MPG	42.9	44.1	44.6	47.4
	Cu. Ft. MPG	2766	3071	3099	3069
	Cu. Ft. Ton-MPG	4743	4771	4888	5261
Drive	Front	80%	96%	96%	91%
	Rear	15%	3%	2%	3%
	Four Wheel	5%	1%	2%	6%
Transmission	Lockup	85%	83%	85%	81%
	Manual	13%	14%	12%	19%

Table 18

**Best in Class Results: Model Year 2004 Trucks**

Vehicle Characteristic	Selection Basis	Actual Data	Size Class	Size Class	Weight Class
	Selection Criteria	All Truck	Best 4 Nameplates	Best 12 Vehicles	Best 12 Vehicles
Percent of Truck Fleet Included		100%	30%	21%	30%
Fuel Economy	Lab. 55/45	20.9	23.4	24.6	22.8
	Adjusted City	16.0	18.0	18.9	17.4
	Adjusted Highway	20.8	23.0	24.1	22.6
	Adjusted 55/45	17.9	19.9	21.0	19.4
Vehicle Size	Weight (lb)	4712	4233	4063	4712
Engine	CID	251	208	193	228
	HP	235	210	194	229
	HP/CID	0.955	1.038	1.028	1.028
	HP/Wt	0.0498	0.0491	0.0473	0.0483
	Pct. Four Valve/Cyl.	44%	60%	66%	65%
Performance	0 to 60 Time (sec.)	10.1	10.2	10.5	10.3
	Top Speed (mph)	137	133	130	135
	Ton-MPG	42.1	42.3	42.6	45.7
Drive	Front	19%	28%	35%	37%
	Rear	32%	22%	32%	19%
	Four Wheel	50%	50%	33%	44%
Transmission	Lockup	89%	90%	85%	93%
	Manual	4%	7%	11%	5%

Table 19

**Best in Class Results: Model Year 2004 Light-Duty vehicles**

Vehicle Characteristic	Selection Basis	Actual Data	Size Class	Size Class	Weight Class
	Selection Criteria	All Vehicles	Best 4 Nameplates	Best 12 Vehicles	Best 12 Vehicles
Fuel Economy	Lab. 55/45	24.4	27.3	28.2	26.7
	Adjusted City	18.5	20.9	21.6	20.3
	Adjusted Highway	24.6	27.3	28.1	26.9
	Adjusted 55/45	20.8	23.3	24.1	22.8
Vehicle Size	Weight (lb) Volume (Cu. Ft.)	4066	3677	3602	4066
Engine	CID	209	173	165	184
	HP	208	182	171	195
	HP/CID	1.028	1.087	1.065	1.088
	HP/Wt	0.0510	0.0490	0.0470	0.0474
	Pct. Four Valve/Cyl.	57%	73%	74%	80%
Performance	0 to 60 Time (sec.)	10.0	10.3	10.5	10.5
	Top Speed (mph)	135	130	127	130
	Ton-MPG	42.5	43.2	43.6	46.6
Drive	Front	50%	63%	67%	65%
	Rear	23%	12%	16%	11%
	Four Wheel	27%	25%	17%	24%
Transmission	Lockup	87%	87%	85%	87%
	Manual	9%	10%	12%	12%



Table 20 shows the results of comparisons of this year's fleet to the fleets of the baseline years 1981 and 1987. These comparisons were made using the characteristics of vehicles with conventional drive trains, i.e., excluding hybrids and diesels.

Table 20

**Laboratory Fuel Economy, Inertia Weight, and 0-to-60 Time  
For Three Model Years**

Vehicle Type	Model Year	55/45 MPG	Inertia Weight	0-to-60 Time
Cars	1981	25.1	3075	14.4
	1987	28.1	3030	13.0
	2004	28.7	3462	9.9
Trucks	1981	20.1	3805	14.6
	1987	21.6	3712	13.3
	2004	20.9	4712	10.1
Both	1981	24.1	3201	14.4
Cars and	1987	25.9	3220	13.1
Trucks	2004	24.4	4066	10.0

The comparisons are made by preserving the efficiency characteristics of today's fleet but re-mixing it to reflect the sales distribution by the size, or weight, or performance characteristics of the baseline year. In the table these distributions are referred to as "mixes," so that "1987 Wt. Mix" means the sales distribution by weight class of the 1987 fleet.

Table 21 shows the results of various ways to examine what the fuel economy of the fleet would be if today's fleet of cars and trucks were "like" those of an earlier year in one or more respects. For example, using weight and performance distributions like those of 1981 and 1987 would yield car fuel economy improvements of 29 percent and 20 percent, respectively.

Mixing today's efficiency characteristics with the baseline year's size, weight, and performance distributions shows an improvement over the 2004 actual values in nearly all cases. This is evidence that today's vehicles are more efficient, vehicle for vehicle, than they were in the baseline years — especially evident when the values are compared to the actual values for the base years, shown as "Ref: 1981 Actuals" and "Ref: 1987 Actuals" in the Table, for which every re-mixed value shows an improvement.

Figures 63 through 66 provide estimates of what the MPG of the car and truck fleet would have been each model year if:

- (1) the weight mix had been kept the same as in each of the two base years,
- (2) the distribution of acceleration time was kept the same as in each of the two base-line years, and
- (3) both the weight distribution and average acceleration time were the same as in the base years.

A similar comparison on the basis of vehicle size and type is presented in Figures 67 through 70.

Table 21

**Effect of Performance, Size, and Weight Distributions on  
Laboratory 55/45 Fuel Economy**

Distribution Used	Laboratory 55/45 Fuel Economy			Percent Change From 2004 Fuel Economy		
	Cars	Trucks	Both	Cars	Trucks	Both
<b>Using 1981 Sales Distributions</b>						
Performance	30.1	21.6	25.3	4.9%	3.3%	3.7%
Size	27.9	20.6	23.8	-2.8%	-1.4%	-2.5%
Size and Performance	36.5	22.9	28.4	27.2%	9.6%	16.4%
Weight	33.4	24.9	28.7	16.4%	19.1%	17.6%
Weight and Performance	37.1	27.2	31.6	29.3%	30.1%	29.5%
Ref: 1981 Actuals	25.1	20.1				
<b>Using 1987 Sales Distributions</b>						
Performance	31.3	21.9	25.9	9.1%	4.8%	6.1%
Size	28.7	22.3	25.2	0.0%	6.7%	3.3%
Size and Performance	33.8	23.1	27.6	17.8%	10.5%	13.1%
Weight	33.2	25.4	28.9	15.7%	21.5%	18.4%
Weight and Performance	34.5	26.2	29.9	20.2%	25.4%	22.5%
Ref: 1987 Actuals	28.1	21.6				
Actual 2004 Distribution	28.7	20.9	24.4+			

### Effect of Weight and Acceleration on Car Fuel Economy

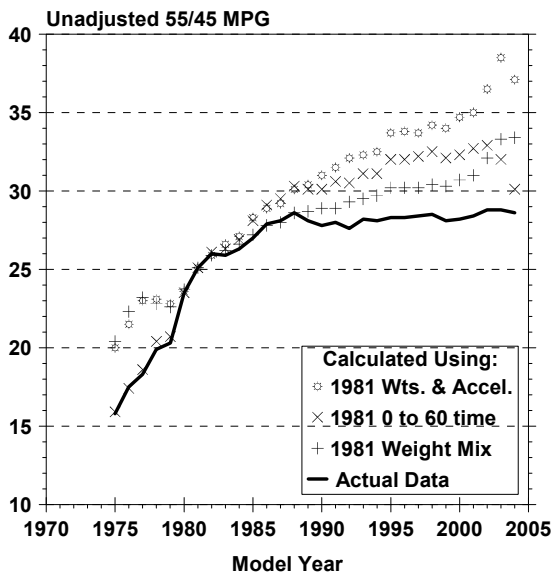


Figure 63

### Effect of Weight and Acceleration on Truck Fuel Economy

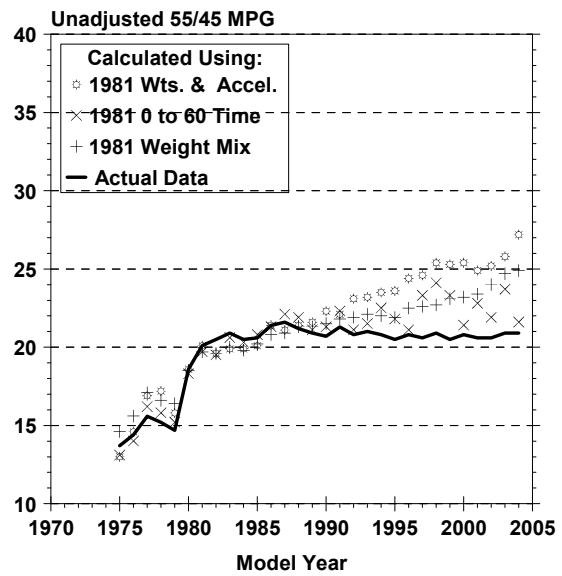


Figure 64

### Effect of Weight and Acceleration on Car Fuel Economy

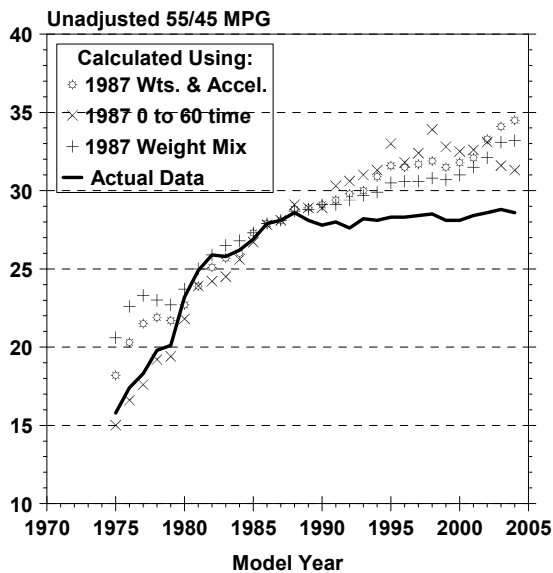


Figure 65

### Effect of Weight and Acceleration on Truck Fuel Economy

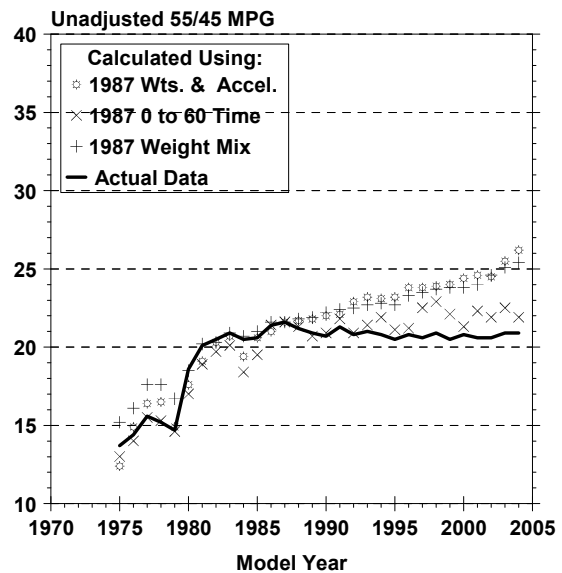


Figure 66

### Effect of Vehicle Size, Type & Acceleration on Car Fuel Economy

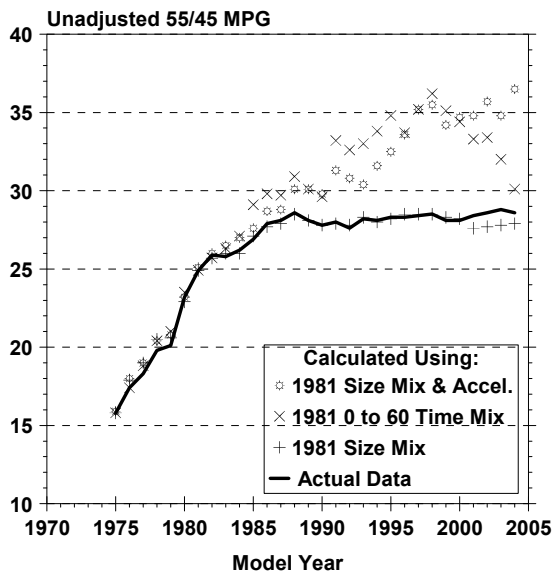


Figure 67

### Effect of Vehicle Size, Type & Acceleration on Truck Fuel Economy

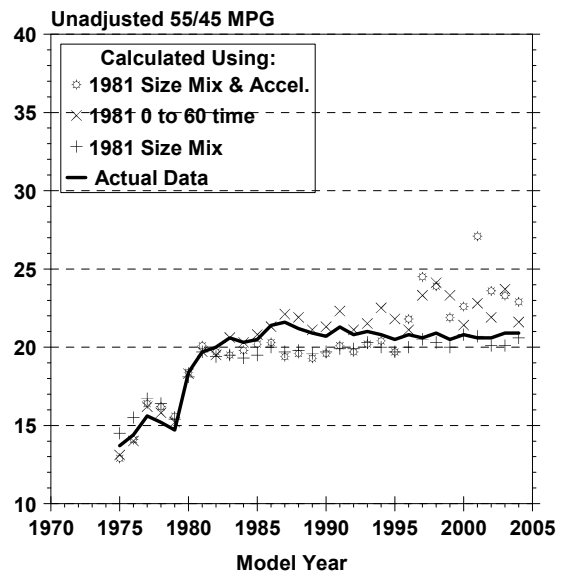


Figure 68

### Effect of Vehicle Size, Type & Acceleration on Car Fuel Economy

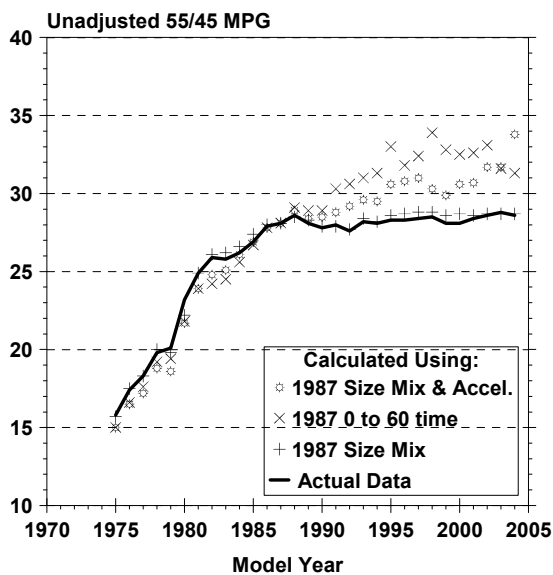


Figure 69

### Effect of Vehicle Size, Type & Acceleration on Truck Fuel Economy

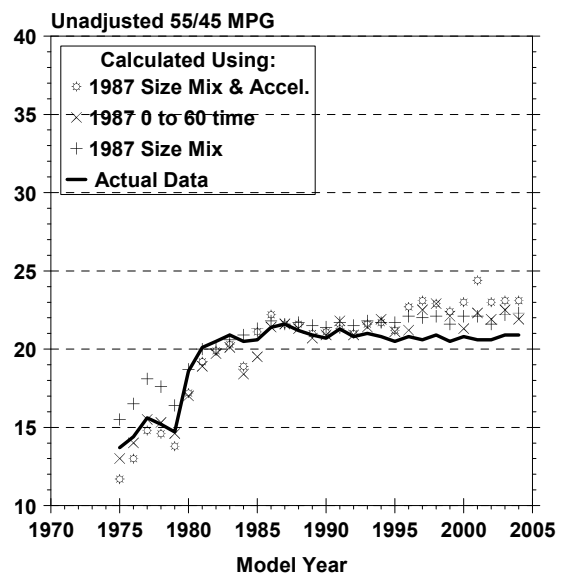


Figure 70

A summary of the different approaches is presented in Table 22. Considering the seven different ways in which fuel economy improvements for the fleet can be estimated, based on the characteristics of the existing fleet, the range of improvements for the fleet is from 9 to 30 percent. The average is 18 percent. Different methods and different base years could, of course, yield different results, and as discussed earlier, the hypothetical fleets that have higher fuel economy tend to be different from today's fleet because while they have higher fuel economy, they also are slower and lighter.

Table 22

**Summary of Fuel Economy Improvement Potential**

<b>Scenario</b>	<b>Laboratory 55/45 Fuel Economy</b>		
	<b>Cars</b>	<b>Trucks</b>	<b>Both</b>
1 Model Year 2004 Actual Average	28.7	20.9	24.4
2 1981 Weight Mix and 0-to-60 Time	37.1	27.2	31.8
3 1987 Weight Mix and 0-to-60 Time	34.5	26.2	30.2
4 1981 Size Mix and 0-to-60 Time	36.5	22.9	28.6
5 1987 Size Mix and 0-to-60 Time	33.8	23.1	27.9
6 Best 4 Nameplates in Size Class	32.9	23.4	27.4
7 Best 12 Vehicles in Size Class	32.8	24.6	28.2
8 Best 12 Vehicles in Weight Class	32.0	22.8	26.7

**Percent Improvement over Model Year 2004 Actual Averages**

2 1981 Weight Mix and 0-to-60 Time	29.3%	30.1%	30.3%
3 1987 Weight Mix and 0-to-60 Time	20.2%	25.4%	23.8%
4 1981 Size Mix and 0-to-60 Time	27.2%	9.6%	17.3%
5 1987 Size Mix and 0-to-60 Time	17.8%	10.5%	14.2%
6 Best 4 Nameplates in Size Class	14.6%	12.0%	11.9%
7 Best 12 Vehicles in Size Class	14.3%	17.7%	15.6%
8 Best 12 Vehicles in Weight Class	11.5%	9.1%	9.4%
Average (all seven scenarios)	19.2%	18.8%	18.3%

Note: Scenario 1 includes hybrids/diesels; all others do not.

## **VII. Conclusions**

1. The trends in light-duty vehicle fuel economy have exhibited four stages over the past 30 years:
  - A. a rapid increase from 1975 continuing into the mid-1980s,
  - B. a slow increase extending into the late 1980s,
  - C. a gradual decline from then until the late 1990s, and
  - D. a period of relatively constant fuel economy since then.
2. Model year 2004 light-duty vehicles are estimated to average 20.8 miles per gallon (MPG), about the same value achieved in model year 2003, but six percent below the 1987-88 peak of 22.1 MPG and nearly 60 percent more than the average achieved in 1975.
3. Light truck market share has generally been increasing since 1981. For model year 2004, light trucks are projected to account for 48 percent of all light-duty vehicles. Most of this growth in the light truck market has been led by the increase in the popularity of sport utility vehicles(SUVs), which now account for more than one fourth of all new light-duty vehicles.
4. Compared to 1987 as a benchmark year, this year's fleet is 26 percent heavier, 24 percent faster, and 76 percent more powerful.
5. Technologies important for improving fuel economy including hybrids, CVTs, and diesel engines are represented in the current fleet, but total sales for vehicles equipped with these technologies are not yet significant, i.e., none of them exceed two percent of the light-duty vehicle fleet.

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# **Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2004**

## **Appendixes**

# **Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2004**

## **Appendixes**

Advanced Technology Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

### ***NOTICE***

*This Technical Report does not necessarily represent final EPA decisions or positions.  
It is intended to present technical analysis of issues using data that are currently available.*

*The purpose in the release of such reports is to facilitate an exchange of  
technical information and to inform the public of technical developments.*

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## Appendix A

### Database Details and Calculation Methods

Light-duty automotive technology and fuel economy trends are examined herein, as in preceding reports in this series [1-30], using the latest and most complete EPA data available. When comparing data in this report with those in previous reports in this series, please note that revisions are made in the data in some model years for which more complete and accurate sales and fuel economy data have become available.

Through model year 2002, the fuel economy, vehicle characteristics, and sales data used for this report were obtained from the most complete databases used for CAFE standards and "gas guzzler" compliance purposes. For all practical purposes, these databases are stable and are not expected to change in the future.

Where available, the model year 2003 data in this report is based on CAFE compliance data submitted to EPA by March 31, 2004. For those MY2003 cases for which compliance data was yet not available, EPA used data that included confidential sales projections submitted to the agency by the automotive manufacturers, but updated the sales data to take into account information reported in trade publications.

For model year 2004, EPA has used exclusively confidential projected sales data that the auto companies are required to submit to the Agency for the Federal Government's fuel economy public information programs: the *Fuel Economy Guide* and the MPG labels that are placed on new vehicles. The source database was frozen in October 2003 for all model years other than 2003.

As shown in table A-1, the final fuel economy averages used in this report are often different from the initial estimates by about one percent.

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\* Numbers in brackets denote references listed in the references section of this report.

## Appendix A

Table A-1 compares average 55/45 laboratory fuel economy for model years 1998 through 2002 at three points in time:

- (1) an initial estimate determined early in each model year using just projected sales,
- (2) a revised estimate determined by using trade publication sales data that were obtained after the end of each model year, but before the data used for the CAFÉ calculations were submitted to the Federal Government, and
- (3) final fuel economy values determined from compliance data provided by the manufacturers to the Federal Government after the end of the model year.

The next report in this series will provide updated data for model years 2003 and 2004 based on information available at that time.

Table A-1

Comparison of Laboratory 55/45 MPG				
	Model Year	Initial Estimate	Revised Estimate	Final Value
Cars	1998	28.6	28.6	28.5
	1999	28.1	28.2	28.1
	2000	28.1	28.3	28.2
	2001	28.3	28.3	28.4
	2002	28.5	28.5	28.6
Trucks	1998	20.6	20.6	20.9
	1999	20.3	20.4	20.5
	2000	20.5	20.5	20.8
	2001	20.3	20.4	20.6
	2002	20.4	20.3	20.6
Both	1998	24.4	24.4	24.5
	1999	23.8	24.0	24.1
	2000	24.0	23.9	24.3
	2001	23.9	24.0	24.2
	2002	24.0	23.9	24.1

The fuel economy data used in some previous editions in this series of reports were laboratory data, with no correction for laboratory to on-road shortfall, alternative fuels capability "credits", or test procedure adjustment. Accordingly, the MPG values in previous reports in this series were always slightly lower than those reported by the Department of Transportation (DOT) and significantly higher than those provided in the *Fuel Economy Guide*. All fuel economy averages in this report are sales-weighted harmonic averages.

## Appendix A

### Averaging Fuel Economy Values

Dimensionally, fuel economy is miles divided by gallons. Then, presented with more than one fuel economy value, an approach to averaging the values is to compute the result by determining the total miles traveled and dividing that by the total gallons used.

Example: A motorist's fuel economy log for May shows that 704 miles were accumulated around town in which the fuel economy was 16 MPG, and one 216 mile trip was taken on which the fuel economy was 24 MPG. What is the average fuel economy for May?

The total miles are  $704 + 216 = 920$ . The total gallons thus, are  $704 / 16 = 44$  plus  $216 / 24 = 9$ ; 53 gallons. The average MPG is  $920 / 53 = 17.4$  MPG. Notice that the arithmetic average of the two fuel economy values  $(16 + 24) / 2 = 20$  MPG gives an individual result which is higher than the total miles/total gallons result.

Even if the around-town miles traveled and the trip-miles traveled were the same (460 miles), the average fuel economy would not be 20; it would be 19.2 MPG. This is because in the total miles/total gallons approach, *fuel consumption* is arithmetically averaged, but *fuel economy* is harmonically averaged, so for the second example (equal trip distances), the calculation would be:

$$\text{average MPG} = 2 / (1/16 + 1/24) = 19.2 \text{ MPG},$$

which is the same as arithmetically averaging the two fuel consumption values.

A specific example of this type of averaging approach is shown in the calculation of the overall average fuel economy using the EPA "city" (MPG<sub>c</sub>) and EPA "highway" (MPG<sub>h</sub>) fuel economy values.

$$\begin{aligned} \text{Average MPG} &= \frac{\text{Total Miles}}{\text{Total Gallons}} \\ &= \frac{\text{Total Miles}}{\text{City Gallons} + \text{Highway Gallons}} \\ &= \frac{\text{Total Miles}}{\text{City Miles/City MPG} + \text{Highway Miles/Highway MPG}} \end{aligned}$$

## Appendix A

Now, if city miles are 55 percent of total miles and highway miles are the remaining 45 percent, after dividing by total miles,

$$\text{Average MPG} = \frac{1}{(.55/\text{MPG}_c) + (.45/\text{MPG}_h)}$$

and this average MPG is called the EPA 55/45 MPG value.

The same approach can be used when the average MPG of a group of vehicles with different MPG values is to be calculated. Suppose a fleet of 100,000 vehicles is made up of two classes, one of 70,000 vehicles whose fuel economy is 10 MPG and the other of 30,000 vehicles whose fuel economy is 14 MPG. Each vehicle in the fleet is assumed to travel the same number of miles (**M**),

$$\text{Total Miles} = 100,000 \text{ } \mathbf{M}$$

$$\text{Total Gallons} = 70,000 \text{ } \mathbf{M} / 10 + 30,000 \text{ } \mathbf{M} / 14$$

and the average fuel economy is:

$$\begin{aligned} \text{Average Fuel Economy} &= \frac{1}{.7/10 + .3/14} \\ &= 10.9 \text{ MPG} \end{aligned}$$

where .7 and .3 are the relative shares of each vehicle class in the fleet. Notice that, again, the arithmetic average of the class fuel economy values  $(10 + 14)/2 = 12$  MPG is higher.

In general, some form of a weighted harmonic mean is used when averaging different fuel economy values.



## Appendix A

### Use of Adjusted MPG

In prior reports in this series, up to and including the one for MY2000, the fuel economy values used were just the laboratory-based city, highway, and combined MPG values – the same ones that are used as the basis for compliance with the fuel economy standards and the gas guzzler tax. Since the laboratory MPG values tend to over predict the MPG achieved in actual use, adjusted MPG values are used for the Government's fuel economy information programs: the *Fuel Economy Guide* and the *Fuel Economy Labels* that are on new vehicles.

The adjusted city MPG is obtained by multiplying the laboratory city MPG by 0.90, and the adjusted highway MPG is obtained by multiplying the laboratory highway MPG value by 0.78. If a combined "55/45" MPG value is calculated, the resulting MPG value is about 15 percent lower than the comparable value using the laboratory-based MPG values. It should be noted that an adjusted composite MPG value is *not* used in the Government's fuel economy information programs discussed above.

Starting with the report issued for MY2001, this series of reports has provided trends in adjusted MPG values in addition to the laboratory MPG values. In this way, the MPG trends can be seen for those who are interested in laboratory MPG and for those interested in MPG values which can be considered to be an estimate of on-road fuel economy. In the tables, these two MPG values are called "Laboratory MPG," "Adjusted MPG" and abbreviated "ADJ" MPG and "LAB" MPG.

Where only one MPG value is presented in this report, it is the "adjusted composite 55/45 combined MPG", i.e.,

$$\text{MPG}_{55/45} = 1 / (.55/\text{MPG}_c + .45/\text{MPG}_h)$$

where  $\text{MPG}_c$  is 0.9 times the laboratory fuel economy on the EPA city driving cycle, and  $\text{MPG}_h$  is 0.78 times the laboratory fuel economy on the EPA highway driving cycle. Appendix D provides additional data on city and highway driving.

To facilitate comparison with data in previous reports in this series, most data tables include what the  $\text{MPG}_{55/45}$  value would have been, had the laboratory fuel economy values not been adjusted downward, as well as the adjusted city, highway, and combined 55/45 fuel economy values. Table A-2 compares CAFE data reported by The Department of Transportation (DOT) with EPA adjusted and laboratory fuel economy data. The DOT values are higher than the values used in the report by a few tenths of an MPG due to test procedure adjustment factors and alternative fuel credits.

## Appendix A

Table A-2

### EPA Adjusted, Laboratory, and NHTSA CAFE Fuel Economy Values by Model Year

Model Year	Cars				Trucks				Both Cars and Trucks			
	EPA Adj.	EPA Unadj.	NHTSA (CAFE)	Diff.	EPA Adj.	EPA Unadj.	NHTSA (CAFE)	Diff.	EPA Adj.	EPA Unadj.	NHTSA (CAFE)	Diff.
1975	13.5	15.8	n/a		11.6	13.7	n/a		13.1	15.3	n/a	
1976	14.9	17.5	n/a		12.2	14.4	n/a		14.2	16.7	n/a	
1977	15.6	18.3	n/a		13.3	15.6	n/a		15.1	17.7	n/a	
1978	16.9	19.9	19.9	0.0	12.9	15.2	n/a		15.8	18.6	n/a	
1979	17.2	20.3	20.3	0.0	12.5	14.7	18.2		15.9	18.7	20.1	
1980	20.0	23.5	24.3	0.8	15.8	18.6	18.5	-0.1	19.2	22.5	23.1	0.6
1981	21.4	25.1	25.9	0.8	17.1	20.1	20.1	0.0	20.5	24.1	24.6	0.5
1982	22.2	26.0	26.6	0.6	17.4	20.5	20.5	0.0	21.1	24.7	25.1	0.4
1983	22.1	25.9	26.4	0.5	17.8	20.9	20.7	-0.2	21.0	24.6	24.8	0.2
1984	22.4	26.3	26.9	0.6	17.4	20.5	20.6	0.1	21.0	24.6	25.0	0.4
1985	23.0	27.0	27.6	0.6	17.5	20.6	20.7	0.1	21.3	25.0	25.4	0.4
1986	23.8	27.9	28.2	0.3	18.3	21.4	21.5	0.1	21.9	25.7	25.9	0.2
1987	24.0	28.1	28.5	0.4	18.4	21.6	21.7	0.1	22.1	25.9	26.2	0.3
1988	24.4	28.6	28.8	0.2	18.1	21.2	21.3	0.1	22.1	25.9	26.0	0.1
1989	24.0	28.1	28.4	0.3	17.8	20.9	21.0	0.1	21.7	25.4	25.6	0.2
1990	23.7	27.8	28.0	0.2	17.7	20.7	20.8	0.1	21.5	25.2	25.4	0.2
1991	23.9	28.0	28.4	0.4	18.1	21.3	21.3	0.0	21.7	25.4	25.6	0.2
1992	23.6	27.6	27.9	0.3	17.8	20.8	20.8	0.0	21.3	24.9	25.1	0.2
1993	24.1	28.2	28.4	0.2	17.9	21.0	21.0	0.0	21.4	25.1	25.2	0.1
1994	24.0	28.1	28.3	0.2	17.7	20.8	20.8	0.0	21.0	24.6	24.7	0.1
1995	24.2	28.3	28.6	0.3	17.5	20.5	20.5	0.0	21.1	24.7	24.9	0.2
1996	24.2	28.3	28.5	0.2	17.8	20.8	20.8	0.0	21.2	24.8	24.9	0.1
1997	24.3	28.4	28.7	0.3	17.6	20.6	20.6	0.0	20.9	24.5	24.6	0.1
1998	24.4	28.5	28.8	0.3	17.8	20.9	21.1	0.2	20.9	24.5	24.7	0.2
1999	24.1	28.2	28.3	0.2	17.5	20.5	20.9	0.4	20.6	24.1	24.5	0.4
2000	24.1	28.2	28.5	0.3	17.7	20.8	21.3	0.3	20.7	24.3	24.8	0.5
2001	24.3	28.4	28.8	0.4	17.6	20.6	20.9	0.3	20.7	24.2	24.4	0.5
2002	24.5	28.6	28.9	0.3	17.6	20.6	21.3	0.7	20.6	24.1	24.6	0.5
2003	24.7	28.9			17.8	20.9			20.7	24.2		
2004	24.6	28.7			17.9	20.9			20.8	24.4		

Notes:

"Diff." is difference between NHTSA value and EPA laboratory value.

NHTSA data for MY1979 Trucks is just for vehicles with less than 6000 pound GVW.

EPA data is final through MY2002, preliminary for MY2003, MY2004.

## Appendix A

### Use of 3-Year Moving Averages

Use of the three-year moving averages, which effectively smooth the trends, results in an improvement in discerning real trends from what might be relatively small year-to-year variations in the data. For this report, these three-year moving averages are tabulated at their midpoint. For example, the midpoint for model years 2002, 2003, and 2004 is model year 2003. The data used to generate the trend lines in Figure 1 are provided in Table A-3.

Table A-3

#### Light-Duty Vehicle Laboratory Fuel Economy and Truck Sales Fraction

Year	Actual Data				Three Year Moving Average			
	55/45 Cars	Fuel Economy Trucks	Both	Truck Sales Fraction	55/45 Cars	Fuel Economy Trucks	Both	Truck Sales Fraction
1975	15.8	13.7	15.3	0.194	****	****	****	*****
1976	17.5	14.4	16.7	0.212	17.1	14.5	16.5	0.202
1977	18.3	15.6	17.7	0.200	18.5	15.0	17.6	0.213
1978	19.9	15.2	18.6	0.227	19.5	15.2	18.3	0.216
1979	20.3	14.7	18.7	0.222	21.1	16.0	19.8	0.205
1980	23.5	18.6	22.5	0.165	22.8	17.5	21.5	0.187
1981	25.1	20.1	24.1	0.173	24.8	19.7	23.7	0.178
1982	26.0	20.5	24.7	0.197	25.7	20.5	24.5	0.198
1983	25.9	20.9	24.6	0.223	26.1	20.6	24.6	0.220
1984	26.3	20.5	24.6	0.239	26.4	20.7	24.7	0.239
1985	27.0	20.6	25.0	0.254	27.1	20.8	25.1	0.259
1986	27.9	21.4	25.7	0.283	27.7	21.2	25.5	0.272
1987	28.1	21.6	25.9	0.278	28.2	21.4	25.8	0.286
1988	28.6	21.2	25.9	0.298	28.3	21.2	25.7	0.294
1989	28.1	20.9	25.4	0.307	28.2	20.9	25.5	0.302
1990	27.8	20.7	25.2	0.302	28.0	21.0	25.3	0.310
1991	28.0	21.3	25.4	0.322	27.8	20.9	25.2	0.319
1992	27.6	20.8	24.9	0.334	27.9	21.0	25.1	0.339
1993	28.2	21.0	25.1	0.360	28.0	20.9	24.9	0.364
1994	28.1	20.8	24.6	0.398	28.2	20.8	24.8	0.379
1995	28.3	20.5	24.7	0.380	28.2	20.7	24.7	0.393
1996	28.3	20.8	24.8	0.400	28.3	20.6	24.7	0.401
1997	28.4	20.6	24.5	0.423	28.4	20.8	24.6	0.424
1998	28.5	20.9	24.5	0.449	28.4	20.7	24.4	0.441
1999	28.2	20.5	24.1	0.450	28.3	20.7	24.3	0.449
2000	28.2	20.8	24.3	0.449	28.3	20.6	24.2	0.453
2001	28.4	20.6	24.2	0.461	28.4	20.6	24.2	0.465
2002	28.6	20.6	24.1	0.485	28.6	20.7	24.2	0.484
2003	28.9	20.9	24.2	0.507	28.7	20.8	24.2	0.491
2004	28.7	20.9	24.4	0.483	****	****	****	*****

## Appendix A

### Other Variables

All vehicle weight data are based on inertia weight class (nominally curb weight plus 300 pounds). For vehicles with inertia weights up to and including the 3000-pound inertia weight class, these classes have 250-pound increments. For vehicles above the 3000-pound inertia weight class (i.e., vehicles 3500 pounds and above), 500-pound increments are used.

All interior volume data for cars built after model year 1977 are based on the metric used to classify cars for the DOE/EPA *Fuel Economy Guide*. The car interior volume data in this report combine that of the passenger compartment and trunk/cargo space. In the *Fuel Economy Guide*, interior volume is undefined for the two-seater class; for this series of reports, all two-seater cars have been assigned an interior volume value of 50 cubic feet.

The light truck data used in this series of reports includes only vehicles classified as light trucks with gross vehicle weight ratings (GVWR) up to 8,500 pounds. Vehicles with GVWR above 8,500 are not included in the database used for this report. Omitting these vehicles influences the overall averages for all variables studied in this report. The most recent estimates we have made for the impact of these greater than 8500-lb GVWR vehicles was made for model year 2001. In that year, the roughly 931,000 vehicles above 8500 lb GVWR were about six percent of all vehicles less than 8500 lb GVWR. A substantial fraction (42 percent) of the vehicles above 8500 lb GVWR were powered by diesel engines, and three-fourths of the vehicles over 8500 lb GVWR were pickup trucks. Adding in the trucks above 8500 GVW lb increased the truck market share by three percentage points.

Based on a limited amount of actual laboratory fuel economy data, trucks with GVWR greater than 8500 lb GVWR are estimated to have fuel economy values about 14 percent lower than the average of trucks below 8500 lb GVWR. The combined fleet of all vehicles under 8500 lb GVWR and trucks over 8500 lb GVWR is estimated to average about nine percent less in fuel economy compared to that for just the vehicles with less than 8500 lb GVWR.

In addition to fuel economy, some tables in this report contain alternate measures of vehicle fuel efficiency as used in reference 17. "Ton-MPG" is defined as a vehicle's MPG multiplied by its inertia weight in tons. This metric provides an indication of a vehicle's ability to move weight (i.e., its own plus a nominal payload). Ton-MPG is a measure of powertrain/drive-line efficiency. Just as an increase in vehicle MPG at constant weight can be considered an improvement in a vehicle's efficiency, an increase in a vehicle's weight-carrying capacity at constant MPG can also be considered an improvement.

## Appendix A

"Cubic-feet-MPG" for cars is defined in this report as the product of a car's MPG and its interior volume, including trunk space. This metric associates a relative measure of a vehicle's ability to transport both passengers and their cargo. An increase in vehicle volume at constant MPG could be considered an improvement just as an increase in MPG at constant volume can be.

"Cubic-feet-ton-MPG" is defined in this report as a combination of the two previous metrics, i.e., a car's MPG multiplied by its weight in tons and also by its interior volume. It ascribes vehicle utility to the ability to move both weight and volume.

This report also includes an estimate of 0-to-60 mph acceleration time, calculated from engine rated horsepower and vehicle inertia weight, from the relationship:

$$t = F (HP/WT)^{-f}$$

where the values used for F and f coefficients are .892 and .805 respectively for vehicles with automatic transmissions and .967 and .775 respectively for those with manual transmissions [31]. Other authors [32, 33, and 34] have evaluated the relationships between weight, horsepower, and 0-to-60 acceleration time and have calculated and published slightly different values for the F and f coefficients. Since the equation form and coefficients were developed for vehicles with conventional powertrains with gasoline-fueled engines, we have not used the equation to estimate 0-to-60 time for vehicles with hybrid powertrains or diesel engines. Published values are used for these vehicles instead.

The 0-to-60 estimate used in this report is intended to provide a quantitative time "index" of vehicle performance capability. It is the authors' engineering judgment that, given the differences in test methods for measuring 0-to-60 time and given the fact that the weight is based on inertia weight, use of these other published values for the F and f coefficients would not result in a significantly different 0-to-60 relative performance estimate. The results of a similar calculation of estimated "top speed" are also included in some tables.

## Appendix A

### Marketing Groups

In its century of evolution, the automotive industry existed first as small, individual companies that relatively quickly grew into larger corporations. In that context, the historic term 'manufacturer' usually meant a corporation that was associated with a single country that manufactured vehicles for sale in just that country and perhaps exported vehicles to a few other countries, too. Since the first report in this series was prepared, the nature of the automotive industry has changed substantially, and it has evolved into one in which global consolidations and alliances among heretofore independent manufacturers have become the norm, rather than the exception.

The reports in this series include analysis of fuel economy trends in terms of the whole fleet of cars and light trucks and in various subcategories of interest, e.g., by weight class, by size class, etc. In addition, there has been a treatment of trends by groups of manufacturers. Initially, these groups were derived from the "Domestic" and "Import" categories which are part of the automobile fuel economy standards categories. This classification approach evolved into a market segment approach in which cars were apportioned to a "Domestic," "European," and "Asian" category, with trucks classified as "Domestic" or "Imported." As the automotive industry has become more transnational in nature, this type of vehicle classification has become less useful.

In this report, trends by groups of manufacturers are now used instead of the Domestic/Imported type grouping to reflect the transnational and transregional nature of the automobile industry. To reflect the transition to an industry in which there are only a small number of independent companies, the fleet has been divided into eight segments consisting of three multiple partner "marketing groups," four groups with just a few partners, and an eighth catch-all group ("Others") that contains those manufacturers that have not been assigned to one of the seven major marketing groups.

Taken together, the seven major marketing groups comprise over 97 percent of the MY2004 new vehicle market in the U.S. Note that, because the sales data provided to EPA by these manufacturers is confidential and cannot be released to the public, trends in market share by marketing group cannot be included in this report.

## Appendix A

The seven major marketing groups used in this report are:

- a. The General Motors Group includes GM and those companies which GM owns or has a substantial affiliation with, i.e., Opel, Saab, Isuzu, Fiat, Subaru, Suzuki, and Daewoo;
- b. The Ford Motor Group includes Ford, Jaguar, Volvo, Land Rover, Aston Martin, and Mazda;
- c. The DaimlerChrysler Group includes Chrysler, Mercedes Benz, Mitsubishi, Hyundai, and Kia;
- 4) The Toyota Group includes Toyota, Scion and Lexus;
- 5) The Honda Group includes Honda and Acura;
- 6) The Nissan Group include Nissan and Infiniti; and
- 7) The VW Group includes Volkswagen, Audi, SEAT, Skoda, and Bentley.

It is expected that these marketing groups will continue to expand as other consolidations in the automotive industry occur; for example, Daewoo was added to the GM group for model year 2003.

## Appendix A

### Vehicle Classification

Grouping all vehicles into classes and then constructing time trends of parameters of interest, like MPG, can provide interesting and useful results. These results, however, are a strong function of the class definitions. Classes based on other definitions than those used in this report are possible, and results from these other classifications may also be useful

For cars, vehicle classification as to vehicle type, size class, and manufacturer/origin generally follows fuel economy label, *Fuel Economy Guide*, and fuel economy standards protocols; exceptions are listed in Table A-4. In many of the passenger car tables, large sedans and wagons are aggregated as "Large," midsize sedans and wagons are aggregated as "Midsize," and "Small" includes all other cars. In some of the car tables, an alternative classification system is used, namely: Large Cars, Large Wagons, Midsize Cars, Midsize Wagons, Small Cars, and Small Wagons with the EPA Two-Seater, Mini-Compact, Subcompact, and Compact car classes combined into the "Small Car" class.

The truck classification scheme used for all model years in this report is slightly different from that used prior to 1999 in this series, because pickups, vans, and sports utility vehicles (SUVs) are sometimes each subdivided as "Small," "Midsize," and "Large." These truck size classifications are based primarily on published wheelbase data according to the following criteria:

	<u>Pickup</u>	<u>Van</u>	<u>SUV</u>
Small	Less than 105"	Less than 109"	Less than 100"
Midsize	105" to 115"	109" to 124"	100" to 110"
Large	More than 115"	More than 124"	More than 110"

This classification scheme is similar to that used in many trade and consumer publications. For those vehicle nameplates with a variety of wheelbases, the size classification was determined by considering only the smallest wheelbase produced.

The classification of a vehicle for this report is based on the authors' engineering judgment and is not a replacement for definitions used in implementing automotive standards legislation.



## Appendix A

Table A-4                      **Vehicle Classification Exceptions**

<b>Group/Manufacturer/Vehicles</b>		<b>Years</b>	<b>Are Classified As:</b>
DC:	Chrysler Colt 4WD Wagon	All	Small Wagon
DC:	Chrysler Colt Vista	All	Small Van
DC:	Chrysler PT Cruiser	All	Small Wagon
DC:	Chrysler Summit Wagon	All	Small Van
DC:	Dodge Ramcharger	All	Car
DC:	Eagle 4WD Wagon	All	Car
DC:	Mitsubishi Expo	All	Small Van
DC:	Mitsubishi Space Wagon	All	Small Van
DC:	Chrysler Pacifica	All	Large Wagon
Ford:	Ford Pinto Van	All	Car
Ford:	Volvo V70 XC	All	Midsize Wagon
GM:	Isuzu Oasis	All	Midsize Van
GM:	Pontiac Vibe	All	Small Wagon
GM:	Subaru 4WD Sedans/Wagons	All	Cars
GM:	Subaru Forester	All	Small Utility
GM:	Subaru Baja	All	Small Pickup
GM:	Suzuki X-90	All	Small Utility
Toyota:	Lexus RX300	All	Midsize Utility
Toyota:	Matrix	All	Small Wagon
Honda:	Honda Odyssey	All	Midsize Van
VW:	Audi Allroad	All	Midsize Wagon

## **Appendix A**

### **Other Appendixes**

Appendix B lists the model year 2004 nameplates by size class and their sales-weighted MPG averages as of the data freeze date.

Appendix C contains information about how the factors used in the 55/45 MPG calculation relate to the fraction of driving that is "urban" and also contains data on how the urban or "city fraction" of travel has changed over time.

Appendix D lists and describes the most, and least, fuel efficient vehicles for model years 1975 to 2004. This appendix also includes the sales weighted fuel economy distribution data.

Appendixes E through H contain a series of tables in which the fleet is grouped into classes and stratified based on vehicle type, vehicle type and size, EPA car class, and inertia weight class, respectively.

Appendixes I through L contain a series of tables in which the fleet is grouped into classes and stratified based on drive, transmission type and number of gears, cylinder count, and by the number of engine valves per cylinder, respectively.

Appendix M contains a series of tables in which the fleet is stratified by marketing group.

Appendix N contains tables that provide detailed data related to the section of this report that discusses the characteristics of fleets comprised of fuel efficient vehicles.

# Appendix B

## Model Year 2004 Nameplate Fuel Economy Listing

	<-- FUEL ECONOMY -->				<-- FUEL ECONOMY -->			
	LAB	ADJ	ADJ	ADJ	LAB	ADJ	ADJ	ADJ
	55/45	CITY	HWY	55/45	55/45	CITY	HWY	55/45
TWO SEATER					SUBCOMPACT			
Honda INSIGHT .....	68.4	57.6	58.3	57.9	Toyota SCION XA .....	40.1	31.7	37.7 34.2
Toyota MR2 .....	33.6	26.2	32.4	28.6	Toyota CELICA .....	35.4	27.5	34.5 30.2
Mazda MX-5 MIATA .....	29.3	22.9	28.1	25.0	GM SUZUKI SWIFT .....	34.5	26.3	34.4 29.4
Mercedes-Benz SLK230 .....	28.3	21.7	28.0	24.1	GM DAEWOO KALOS .....	34.5	26.3	34.4 29.4
VW TT ROADSTER QUATTRO .....	27.3	20.6	27.7	23.3	GM CHEVROLET AVEO .....	34.5	26.3	34.4 29.4
BMW Z4 ROADSTER .....	27.1	20.2	28.1	23.1	GM PONTIAC WAVE .....	34.5	26.3	34.4 29.4
VW TT ROADSTER .....	26.7	19.8	28.2	22.9	Honda RSX .....	32.9	25.3	32.6 28.1
Mercedes-Benz SLK320 .....	26.1	19.8	26.3	22.3	GM DUAL-FUEL CHEVY CAVALIER ....	31.5	23.8	32.1 26.9
Porsche BOXSTER .....	25.9	19.1	27.8	22.2	VW NEW BEETLE .....	31.5	24.3	30.8 26.9
DC CROSSFIRE .....	25.6	19.2	26.6	21.9	VW A4 CABRIOLET .....	29.1	22.1	29.1 24.8
Nissan 350Z .....	25.6	19.4	26.0	21.9	Mitsubishi ECLIPSE .....	28.0	21.2	28.3 23.9
Honda S2000 .....	25.5	19.5	25.4	21.8	Toyota CAMRY SOLARA CONV. ....	27.3	20.3	28.9 23.4
GM CORVETTE .....	25.0	18.4	26.6	21.4	Saab 9-3 CONV. ....	27.2	20.1	28.8 23.3
Nissan 350Z ROADSTER .....	24.8	18.8	25.3	21.2	Hyundai TIBURON .....	26.8	20.2	27.2 22.9
Porsche BOXSTER S .....	24.6	18.1	26.4	21.1	Mercedes-Benz CLK320 .....	26.2	20.0	26.3 22.4
Honda NSX .....	23.3	17.4	24.3	19.9	Subaru IMPREZA AWD .....	26.0	19.7	26.6 22.3
Ford THUNDERBIRD .....	23.1	17.3	24.0	19.8	Ford MUSTANG .....	25.1	18.7	26.2 21.4
GM XLR .....	22.7	16.6	24.7	19.5	Volvo C70 CONV. ....	24.7	18.4	25.9 21.2
Mercedes-Benz SLK32 AMG .....	22.4	17.1	22.5	19.2	VW A4 CABRIOLET QUATTRO .....	24.5	18.3	25.4 20.9
Mercedes-Benz SL500 .....	21.2	15.7	22.7	18.2	Jaguar XK8 .....	24.0	17.6	25.8 20.6
Porsche TURBO 2 911 GT2 .....	20.9	15.1	23.3	18.0	Mazda RX-8 .....	24.0	18.3	23.9 20.5
Porsche CARRERA 2 911 GT3 .....	20.7	15.0	22.9	17.8	BMW 645CI .....	23.8	17.4	25.7 20.4
Lotus LOTUS ESPRIT V8 .....	20.6	15.0	22.5	17.7	Ford ROUSH STAGE3 MUSTANG .....	22.9	16.7	25.0 19.7
Mercedes-Benz SL55 AMG .....	19.4	14.2	21.0	16.6	BMW M3 .....	22.1	16.3	23.8 19.0
Mercedes-Benz SL600 .....	17.4	12.8	18.6	14.9	Mercedes-Benz CLK500 .....	22.1	16.7	22.5 18.9
DC VIPER CONV. ....	17.1	12.1	20.2	14.7	Jaguar XKR .....	21.4	15.8	22.8 18.3
Maserati SPIDER CAMBIOCORSA ....	15.6	11.5	16.8	13.4	VW S4 CABRIOLET .....	21.2	15.9	22.0 18.1
Ferrari 360 MODENA-SPIDER .....	14.5	10.6	16.0	12.5	Mercedes-Benz CLK-CLASS .....	20.8	15.4	21.9 17.8
Ferrari 575 M MARANELLO .....	14.1	9.9	16.4	12.1	Mercedes-Benz ML350 .....	19.2	15.2	18.0 16.4
Lamborghini L-140-141 GALLARDO .	13.3	9.3	16.1	11.4	Mercedes-Benz ML500 .....	18.2	14.3	17.2 15.5
Lamborghini L-147-148 MURCIELAGO	13.0	9.4	14.3	11.1	Maserati CAMBIOCORSA-COUPE GT ..	15.6	11.5	16.8 13.4
MINICOMPACT								
BMW MINI COOPER .....	34.7	26.6	34.4	29.6				
BMW MINI COOPER S .....	32.9	24.6	34.1	28.2				
VW NEW BEETLE CONV. ....	29.2	21.9	30.1	25.0				
VW TT COUPE .....	27.8	20.8	28.9	23.8				
VW TT COUPE QUATTRO .....	27.4	20.8	27.7	23.4				
Mitsubishi ECLIPSE SPYDER .....	27.2	20.6	27.4	23.2				
BMW 325CI CONV. ....	25.1	18.6	26.6	21.5				
BMW 330CI CONV. ....	24.9	18.6	25.9	21.3				
Porsche TARGA .....	24.3	17.9	26.1	20.8				
Porsche CARRERA 2 .....	24.3	17.9	26.1	20.8				
Porsche TARGA KIT .....	24.3	17.8	26.2	20.8				
Jaguar XK8 CONV. ....	24.0	17.6	25.8	20.6				
Toyota SC 430 .....	23.1	17.5	23.4	19.7				
Porsche CARRERA 4 .....	22.7	16.9	23.6	19.4				
Jaguar XKR CONV. ....	21.4	15.8	22.8	18.3				
BMW M3 CONV. ....	21.4	15.8	22.6	18.3				
Porsche TURBO4 911 TURBO KIT ...	20.2	14.8	22.1	17.4				
Porsche TURBO4 911 TURBO .....	20.1	14.7	22.1	17.3				
Porsche TURBO4 911 TURBO CAB KIT	20.2	14.7	22.1	17.3				
Porsche TURBO 4 911 TURBO CAB ..	20.1	14.6	22.1	17.2				
Aston Martin V12 VANQUISH .....	17.0	12.2	19.1	14.6				

# Appendix B

## Model Year 2004 Nameplate Fuel Economy Listing

	<-- FUEL ECONOMY -->			
	LAB	ADJ	ADJ	ADJ
	55/45	CITY	HWY	55/45
COMPACT				
Honda CIVIC HYBRID	56.3	47.3	48.0	47.6
Toyota ECHO	42.6	33.7	40.1	36.3
Honda CIVIC	38.5	29.8	37.4	32.8
Toyota COROLLA	38.1	29.2	37.8	32.5
Hyundai ACCENT-BRIO	35.0	26.9	34.6	29.9
Nissan SENTRA	34.1	26.6	32.7	29.0
VW GOLF	33.4	25.8	32.6	28.5
KIA RIO	33.1	25.6	32.4	28.3
DC NEON-SRT-4-SX 2.0	32.8	25.2	32.3	28.0
GM CAVALIER	32.7	24.3	34.4	28.0
GM SUNFIRE	32.7	24.3	34.4	28.0
Mazda MAZDA 3	32.5	25.2	31.6	27.7
Hyundai ELANTRA	32.4	24.7	32.5	27.7
Suzuki AERIO	32.2	25.1	30.8	27.4
Mitsubishi LANCER	31.9	24.9	30.8	27.2
GM ION	31.9	23.9	33.1	27.3
Ford FOCUS	31.7	24.5	30.8	27.0
VW JETTA	31.3	24.1	30.8	26.7
GM ALERO	30.4	22.3	32.8	26.1
VW GTI	30.2	23.1	30.3	25.8
Suzuki AERIO AWD	30.2	23.8	28.6	25.7
Mercedes-Benz C230 KOMPRESSOR	30.2	22.9	30.4	25.8
GM GRAND AM	30.1	22.1	32.6	25.8
Honda TSX	29.9	22.4	30.8	25.5
VW A4	29.5	22.4	29.8	25.2
Toyota CAMRY SOLARA	29.4	22.0	30.7	25.2
KIA SPECTRA	29.2	21.9	30.0	25.0
Volvo S60 FWD	29.1	21.7	30.1	24.9
Volvo S40	28.9	21.8	29.5	24.7
Saab 9-3 SPORT SEDAN	28.6	21.2	30.1	24.5
DC STRATUS	28.2	21.1	29.0	24.1
Mitsubishi STRATUS	27.9	21.1	28.3	23.9
DC SEBRING CONV.	27.8	21.2	27.9	23.8
DC SEBRING	27.8	20.9	28.5	23.8
Subaru LEGACY-OUTBACK AWD	27.3	20.9	27.0	23.3
VW A4 QUATTRO	26.7	19.8	28.0	22.8
Volvo S60 AWD	26.7	20.1	27.3	22.8
BMW 330I	26.3	19.5	27.8	22.5
BMW 325I	26.3	19.5	27.6	22.5
Mercedes-Benz C-CLASS COUPE	26.1	19.8	26.3	22.3
Mercedes-Benz C320	26.1	19.8	26.3	22.3
BMW 325XI	25.6	19.3	26.2	21.9
Mercedes-Benz C-CLASS SEDAN	25.5	19.6	25.2	21.8
Mercedes-Benz C240 4MATIC	24.9	19.1	24.8	21.3
Mercedes-Benz C240	24.7	19.0	24.3	21.0
BMW 330XI	24.6	18.3	25.7	21.0
Nissan G35	24.4	18.3	25.4	20.9
VW PASSAT 4MOTION	24.3	18.1	25.5	20.8
Jaguar X-TYPE	24.2	18.0	25.5	20.7
Volvo S60 R AWD	24.0	17.9	25.2	20.6
Toyota IS 300	23.7	17.9	24.4	20.3
Nissan M45	23.0	17.4	23.4	19.6
GM GTO	22.2	16.6	23.1	19.0
Mercedes-Benz CL500	21.9	16.0	23.8	18.8
Mercedes-Benz C32 AMG	21.1	16.1	21.0	18.0
VW S4	20.9	15.6	21.8	17.9
Mercedes-Benz CL55 AMG	19.4	14.2	21.0	16.6
Mercedes-Benz CL600	17.4	12.8	18.6	14.9

	<-- FUEL ECONOMY -->			
	LAB	ADJ	ADJ	ADJ
	55/45	CITY	HWY	55/45
MIDSIZE SEDAN				
Toyota PRIUS	65.8	59.9	50.5	55.3
Hyundai ELANTRA	35.1	27.1	34.3	29.9
GM CLASSIC	32.2	23.9	33.9	27.6
GM MALIBU	30.9	23.0	32.4	26.5
Honda ACCORD	30.7	22.9	32.1	26.3
Toyota CAMRY	30.3	22.7	31.3	25.9
Nissan ALTIMA	28.9	22.3	28.4	24.7
Mitsubishi GALANT	28.6	21.7	29.0	24.5
DC STRATUS 4-DR	28.4	21.6	28.6	24.3
VW PASSAT	28.3	21.0	29.7	24.2
GM MONTE CARLO	28.1	20.4	30.9	24.1
KIA OPTIMA	28.0	21.0	28.9	24.0
DC SEBRING 4-DR	27.9	21.3	27.9	23.8
Mazda MAZDA 6	27.8	21.1	27.9	23.7
GM CENTURY	27.5	20.2	29.8	23.6
Toyota ES 330	27.5	20.3	29.3	23.6
Honda TL	27.4	20.3	28.7	23.4
GM L300	27.3	20.5	28.2	23.4
GM REGAL	27.2	19.7	30.0	23.3
Nissan MAXIMA	26.9	20.0	28.1	23.0
VW A6	26.8	20.4	26.8	22.9
GM GRAND PRIX	26.7	19.4	29.3	22.9
Volvo S80 AWD	26.7	20.1	27.3	22.8
Hyundai SONATA	26.5	19.7	27.8	22.6
Saab 9-5	26.4	19.4	28.4	22.6
GM DAEWOO MAGNUS	26.4	19.7	27.5	22.6
GM CHEVROLET EPICA	26.4	19.7	27.5	22.6
GM SUZUKI VERONA	26.4	19.7	27.5	22.6
Ford SABLE	26.1	19.7	26.8	22.3
Volvo S80-S80 PREMIER	26.0	19.5	27.1	22.3
BMW 525I	25.8	18.8	28.2	22.1
Nissan I35	25.8	19.5	26.2	22.0
Mercedes-Benz E320	25.7	19.3	26.6	22.0
BMW 530I	25.4	18.5	27.8	21.8
Jaguar S-TYPE 4.2 LITRE	25.3	18.4	27.7	21.7
GM CTS	24.5	17.7	27.4	21.1
Jaguar S-TYPE 3.0 LITRE	24.5	18.1	26.0	21.0
VW A6 QUATTRO	24.2	18.1	25.2	20.7
GM SEVILLE	24.2	17.6	26.4	20.8
Mercedes-Benz E320 4MATIC	24.2	18.4	24.3	20.6
Ford LS	24.1	18.0	24.9	20.6
Toyota GS 300-GS 430	23.8	17.9	24.6	20.4
BMW 545I	23.8	17.5	25.7	20.4
Honda 3.5RL	23.7	18.1	23.8	20.3
Hyundai XG350	23.4	17.0	25.8	20.1
Jaguar S-TYPE R	23.3	17.3	24.4	19.9
Mitsubishi DIAMANTE SEDAN	23.2	17.0	25.0	19.9
Nissan Q45	23.0	17.4	23.4	19.6
Mercedes-Benz E500	22.2	16.4	23.8	19.0
Mercedes-Benz E500 4MATIC	20.8	16.0	20.4	17.7
Mercedes-Benz E55 AMG	19.4	14.2	21.0	16.6
Rolls-Royce Rolls Royce	17.1	12.5	18.6	14.7
Rolls-Royce PHANTOM	17.1	12.5	18.6	14.7
BENTLEY ARNAGE	13.8	10.3	14.5	11.8

# Appendix B

## Model Year 2004 Nameplate Fuel Economy Listing

<-- FUEL ECONOMY -->  
 LAB ADJ ADJ ADJ  
 55/45 CITY HWY 55/45

### LARGE SEDAN

GM MALIBU MAXX .....	30.5	22.7	31.9	26.1
Toyota AVALON .....	28.4	21.4	29.1	24.3
GM IMPALA .....	28.1	20.4	30.9	24.1
DC INTREPID .....	27.5	20.6	28.5	23.5
GM LESABRE .....	27.1	19.8	29.5	23.2
DC CONCORDE-LHS .....	26.8	19.9	28.1	22.9
GM PARK AVENUE .....	26.7	19.5	29.1	22.9
GM BONNEVILLE .....	26.2	19.1	28.7	22.5
Ford TAURUS .....	25.6	19.2	26.4	21.9
DC 300 M .....	25.3	18.8	26.9	21.7
Jaguar VDP 4.2 LITRE .....	25.3	18.4	27.7	21.7
Jaguar XJ8 4.2 LITRE .....	25.3	18.4	27.7	21.7
BMW 745I .....	24.4	18.0	26.1	20.9
BMW 745LI .....	24.4	18.0	26.1	20.9
GM DEVILLE .....	24.2	17.6	26.4	20.8
Mercedes-Benz S430 .....	24.1	17.6	26.1	20.7
Toyota LS 430 .....	24.0	17.9	25.0	20.5
VW A8 L .....	23.4	17.5	24.3	20.0
Jaguar XJR 4.2 LITRE .....	23.3	17.3	24.4	19.9
Ford TOWN CAR .....	23.1	16.9	24.9	19.8
Ford GRAND MARQUIS .....	23.1	16.9	24.9	19.8
KIA MOTORS AMANTI .....	22.6	16.5	24.8	19.4
Ford MARAUDER .....	22.5	16.8	23.2	19.2
Mercedes-Benz S500 .....	21.9	16.0	23.8	18.8
Mercedes-Benz S430 4MATIC .....	21.9	16.6	22.2	18.7
Ford CROWN VICTORIA .....	21.7	16.3	22.3	18.6
Mercedes-Benz S500 4MATIC .....	20.9	15.7	21.5	17.9
BMW 760LI .....	20.3	14.7	22.6	17.5
GM LIMOUSINE .....	20.0	14.8	21.3	17.1
Rolls-Royce PHAETON .....	19.7	14.4	21.4	16.9
Mercedes-Benz S55 AMG .....	19.4	14.2	21.0	16.6
GM FUNERAL COACH-HEARSE .....	18.8	14.0	19.5	16.1
Mercedes-Benz S600 .....	17.0	12.4	18.6	14.6
Mercedes-Benz MAYBACH 57 .....	16.2	12.0	17.3	13.9
Mercedes-Benz MAYBACH 62 .....	16.0	11.8	17.2	13.7
BENTLEY ARNAGE LWB .....	13.8	10.3	14.5	11.8

<-- FUEL ECONOMY -->  
 LAB ADJ ADJ ADJ  
 55/45 CITY HWY 55/45

### SMALL WAGON

Toyota SCION XB .....	37.6	30.2	34.5	32.0
Toyota COROLLA MATRIX .....	35.3	27.8	33.3	30.1
GM VIBE .....	34.9	27.5	33.1	29.7
VW JETTA .....	32.7	25.0	32.6	27.9
Suzuki AERIO SX .....	31.9	24.8	30.6	27.1
Suzuki AERIO SX AWD .....	30.2	23.8	28.6	25.7
Mitsubishi LANCER SPORTBACK ....	29.1	22.5	28.5	24.8
Volvo V40 .....	28.9	21.8	29.5	24.7
DC PT CRUISER .....	27.6	21.4	26.8	23.5
Subaru IMPREZA-OUTBACK SPT AWD .	27.4	20.9	27.5	23.4
VW A4 AVANT QUATTRO .....	27.0	20.1	28.4	23.1
BMW 325I SPORT .....	26.4	19.6	27.7	22.6
Mercedes-Benz C320 .....	26.2	20.0	26.3	22.4
Mercedes-Benz C320 4MATIC .....	25.7	19.3	26.6	22.0
Mercedes-Benz C-CLASS .....	25.6	19.6	25.3	21.8
BMW 325XI SPORT .....	25.5	19.2	26.1	21.8
Mercedes-Benz C240 4MATIC .....	24.9	19.1	24.8	21.3
Mercedes-Benz C240 .....	24.9	19.2	24.6	21.3
VW S4 AVANT .....	20.8	15.5	21.7	17.8

### MIDSIZE WAGON

Ford FOCUS .....	31.3	24.3	30.4	26.7
GM LW300 .....	29.1	21.8	30.1	24.9
VW PASSAT .....	28.2	21.0	29.6	24.2
Volvo V70 FWD .....	27.9	20.9	28.9	23.9
Subaru LEGACY-OUTBACK AW .....	27.5	21.0	27.3	23.4
Volvo V70 AWD .....	26.7	20.1	27.3	22.8
Saab 9-5 .....	26.5	19.6	28.2	22.7
Mercedes-Benz E320 .....	25.7	19.3	26.6	22.0
Ford SABLE .....	25.3	19.2	25.5	21.6
Ford TAURUS .....	24.9	18.9	25.2	21.3
VW PASSAT 4MOTION .....	24.5	18.2	25.6	21.0
VW A6 AVANT QUATTRO .....	24.5	18.3	25.4	20.9
Volvo XC 70 AWD .....	24.4	18.6	24.4	20.9
Volvo V70 R AWD .....	24.0	17.9	25.2	20.6
Mercedes-Benz E320 4MATIC .....	23.4	17.9	23.3	20.0
Mercedes-Benz E500 .....	21.9	16.0	23.8	18.8
VW ALLROAD QUATTRO .....	21.5	16.3	21.8	18.4
Mercedes-Benz E500 4MATIC .....	20.9	15.7	21.5	17.9

### LARGE WAGON

DC PACIFICA 2WD .....	22.4	16.8	23.0	19.1
DC PACIFICA AWD .....	21.8	16.6	21.9	18.6

# Appendix B

## Model Year 2004 Nameplate Fuel Economy Listing

<-- FUEL ECONOMY -->					<-- FUEL ECONOMY -->				
LAB		ADJ	ADJ	ADJ	LAB		ADJ	ADJ	ADJ
55/45		CITY	HWY	55/45	55/45		CITY	HWY	55/45
MIDSIZE VAN					SMALL SUV				
Toyota SIENNA 2WD	25.7	19.3	26.7	22.0	Toyota RAV4 2WD	30.9	24.4	29.1	26.3
GM SILHOUETTE FWD	25.5	19.1	26.6	21.9	Toyota RAV4 4WD	28.3	22.3	26.6	24.0
GM MONTANA FWD	25.5	19.1	26.6	21.9	Subaru FORESTER AWD	27.3	21.0	26.7	23.3
GM VENTURE FWD	25.5	19.1	26.6	21.9	GM TRACKER	23.7	18.9	22.0	20.2
Chrysler CARAVAN 2WD	24.7	18.5	25.5	21.1	Suzuki VITARA 4-DOOR	23.7	18.8	22.2	20.1
Nissan QUEST	24.7	18.4	25.7	21.1	Suzuki GRAND VITARA	23.7	18.7	22.2	20.1
GM SILHOUETTE AWD	24.4	18.5	24.7	20.9	GM TRACKER 4WD HARDTOP	23.7	18.7	22.1	20.1
GM VENTURE AWD	24.4	18.5	24.7	20.9	GM TRACKER LT 4WD	23.7	18.7	22.1	20.1
GM MONTANA AWD	24.4	18.5	24.7	20.9	GM TRACKER ZR2 4WD	23.7	18.7	22.1	20.1
Chrysler VOYAGER-TOWN&CTRY 2WD	24.4	18.3	25.3	20.9	Suzuki VITARA 4-DOOR 4WD	23.5	18.5	22.0	20.0
Honda ODYSSEY 2WD	24.2	18.1	25.1	20.7	Suzuki GRAND VITARA 4WD	23.5	18.5	22.0	20.0
Toyota SIENNA 4WD	23.8	18.0	24.3	20.4	Chrysler WRANGLER-TJ 4WD	21.0	16.1	20.7	17.9
Mazda MPV	23.8	17.8	24.6	20.3					
Ford FREESTAR CARGO VAN FWD	22.7	17.1	23.2	19.4	MIDSIZE SUV				
Chrysler CARAVAN AWD	22.5	16.9	23.1	19.2	Honda CR-V 2WD	29.4	22.7	28.7	25.0
Chrysler TOWN & COUNTRY AWD	22.5	16.9	23.1	19.2	Honda ELEMENT 2WD	27.8	22.0	26.1	23.6
Ford FREESTAR WAGON FWD	22.1	16.6	22.8	18.9	Mitsubishi OUTLANDER 2WD	27.5	21.4	26.6	23.5
Ford MONTEREY WAGON FWD	21.7	16.3	22.5	18.6	Honda CR-V 4WD	27.4	21.5	26.0	23.4
KIA SEDONA	21.2	15.7	22.4	18.1	GM VUE FWD	27.4	20.8	27.8	23.4
GM SAFARI 2WD (CARGO)	21.0	16.1	20.9	17.9	Honda ELEMENT 4WD	26.4	21.1	24.3	22.4
GM ASTRO 2WD (CARGO)	21.0	16.0	20.8	17.9	Mitsubishi OUTLANDER 4WD	26.2	20.3	25.5	22.3
GM SAFARI 2WD (PASSENGER)	20.4	15.7	20.2	17.4	GM VUE AWD	25.9	19.8	26.0	22.2
GM ASTRO 2WD (PASSENGER)	20.4	15.7	20.2	17.4	Toyota HIGHLANDER 2WD	25.9	20.0	25.3	22.1
GM ASTRO AWD (CARGO)	19.5	15.0	19.2	16.6	Nissan MURANO 2WD	25.9	20.0	25.3	22.1
GM SAFARI AWD (CARGO)	19.4	14.9	19.1	16.6	Toyota RX 330 2WD	25.7	19.6	25.7	21.9
GM SAFARI AWD (PASSENGER)	17.6	13.6	17.2	15.0	GM AZTEK FWD	25.5	19.1	26.6	21.9
GM ASTRO AWD (PASSENGER)	17.6	13.6	17.2	15.0	Nissan MURANO AWD	25.5	20.0	24.4	21.8
					Mazda TRIBUTE 2WD	25.5	19.4	25.7	21.8
LARGE VAN					Ford ESCAPE 2WD	25.1	19.0	25.4	21.5
GM G1500-2500 SAVANA 2WD	19.8	15.2	19.6	16.9	Nissan XTERRA 2WD	24.6	18.8	24.4	21.0
GM G1500-2500 CHEVY EXPRESS 2WD	19.8	15.2	19.6	16.9	GM AZTEK AWD	24.4	18.5	24.7	20.9
Ford E250 ECONOLINE 2WD	19.5	15.0	19.2	16.6	Toyota HIGHLANDER 4WD	24.2	18.6	24.0	20.7
GM G1500-2500 CHEVY VAN 2WD	19.4	14.9	19.0	16.5	Toyota RX 330 4WD	24.2	18.5	24.1	20.6
GM G1500-2500 SAVANA 2WD CARGO	19.3	14.9	18.9	16.5	Hyundai SANTAFE 2WD	24.1	18.4	24.3	20.6
Ford E150 ECONOLINE 2WD	19.0	14.7	18.6	16.2	Isuzu AXIOM 2WD	23.9	18.5	23.3	20.4
GM H1500-2500 SAVANA CARGO AWD	18.4	14.2	18.1	15.7	Mazda TRIBUTE 4WD	23.8	18.3	23.6	20.4
GM H1500-2500 CHEVY VAN AWD	18.4	14.1	18.1	15.7	Ford ESCAPE 4WD	23.6	18.0	23.5	20.1
GM H1500 SAVANA PASS VAN AWD	18.3	14.0	18.1	15.6	Isuzu RODEO 2WD	23.2	17.9	22.9	19.8
GM H1500 CHEVY EXPRESS AWD	18.3	14.0	18.1	15.6	Hyundai SANTAFE 4WD	22.6	17.5	22.0	19.3
GM H1500-2500 SAVANA AWD CARGO	18.3	14.0	18.1	15.6	Chrysler LIBERTY 2WD	22.6	17.1	22.9	19.3
GM H1500 CHEVY VAN AWD	18.3	14.0	18.1	15.6	Mitsubishi ENDEAVOR	22.4	17.1	22.2	19.1
Ford E150 CLUB WAGON	18.3	14.0	18.2	15.6	Toyota 4RUNNER 2WD	22.3	17.6	20.9	19.0
					Honda PILOT 4WD	22.3	17.0	22.2	19.0
					Isuzu RODEO 4WD	22.2	17.1	21.8	19.0
					Honda MDX 4WD	22.2	16.6	22.9	19.0
					Rover FREELANDER	22.1	17.6	20.5	18.8
					Isuzu AXIOM 4WD	21.9	17.1	21.1	18.7
					BMW X3	21.8	16.1	23.4	18.7
					Chrysler LIBERTY 4WD	21.6	16.5	21.6	18.5
					Mitsubishi MONTERO SPORT 2WD	21.5	16.9	20.3	18.3
					Nissan XTERRA V6-2WD	21.5	16.6	20.9	18.3
					Chrysler GRAND CHEROKEE 2WD	21.4	16.1	21.9	18.3
					Chrysler GRAND CHEROKEE 4WD	21.2	15.9	21.9	18.1
					Nissan PATHFINDER 2WD	21.0	16.2	20.8	18.0
					GM BLAZER 2WD	21.0	16.1	20.9	17.9
					Toyota 4RUNNER 4WD	20.8	16.4	19.8	17.7
					Ford EXPLORER 2WD	20.7	15.7	21.0	17.7
					Nissan XTERRA V6-4WD	20.6	16.0	20.1	17.6
					GM JIMMY 2WD	20.2	15.2	20.8	17.3
					KIA SORENTO 2WD	20.0	15.7	19.1	17.1
					Mitsubishi MONTERO SPORT 4WD	19.9	15.9	18.3	16.9
					KIA SORENTO 4WD	19.9	15.3	19.5	17.0
					Ford EXPLORER 4WD	19.8	15.2	19.8	17.0
					GM JIMMY 4WD	19.7	14.9	19.8	16.8
					Nissan PATHFINDER 4WD	19.7	15.2	19.2	16.8
					Mitsubishi MONTERO	19.5	14.9	19.3	16.6
					GM BLAZER 4WD	19.3	14.9	18.8	16.5
					Toyota GX 470	19.3	15.0	18.5	16.4
					Land Rover DISCOVERY SER II	15.7	12.0	15.6	13.4
					Land Rover RANGE ROVER	15.6	11.6	16.1	13.3

## Appendix B

## Model Year 2004 Nameplate Fuel Economy Listing

	<-- FUEL ECONOMY -->					<-- FUEL ECONOMY -->			
	LAB	ADJ	ADJ	ADJ		LAB	ADJ	ADJ	ADJ
	55/45	CITY	HWY	55/45		55/45	CITY	HWY	55/45
LARGE SUV					SMALL PICKUP				
GM RENDEZVOUS FWD .....	25.5	19.1	26.6	21.9	Subaru BAJA AWD .....	26.4	20.2	26.0	22.5
GM RENDEZVOUS AWD .....	24.4	18.5	24.7	20.9	Toyota TACOMA 2WD .....	23.4	18.5	22.0	20.0
Volvo XC 90 FWD .....	24.2	18.4	24.3	20.6	Toyota TACOMA 4WD .....	21.1	16.7	19.7	17.9
Suzuki GRAND VITARA XL-7 .....	22.8	17.6	22.4	19.5	MIDSIZE PICKUP				
Nissan FX35 RWD .....	22.5	16.9	23.4	19.3	Mazda B2300 2WD .....	29.4	23.0	28.1	25.1
Suzuki GRAND VITARA XL-7 4WD ..	22.4	17.3	22.0	19.1	GM COLORADO 2WD .....	24.6	18.9	24.2	21.0
Nissan FX35 AWD .....	21.6	16.5	21.6	18.4	GM CANYON 2WD .....	24.5	18.9	24.2	20.9
Ford MOUNTAINER 2WD .....	20.9	15.8	21.2	17.9	Ford RANGER 2WD .....	24.0	18.6	23.4	20.5
BMW X5 .....	20.8	15.8	21.1	17.8	GM CANYON 4WD .....	23.3	18.0	22.9	19.9
GM SRX 2WD .....	20.7	15.5	21.5	17.7	GM COLORADO 4WD .....	23.3	18.0	22.9	19.9
Volvo XC 90 AWD .....	20.7	15.7	21.0	17.7	Mazda B3000 .....	22.9	17.6	22.4	19.5
GM BRAVADA 2WD .....	20.5	15.6	20.8	17.5	Mazda B4000 2WD .....	21.9	16.7	21.8	18.7
GM ENVOY 2WD .....	20.5	15.6	20.8	17.5	Chrysler DAKOTA 2WD .....	21.2	16.0	21.6	18.1
GM TRAILBLAZER 2WD .....	20.5	15.6	20.8	17.5	Chrysler DAKOTA 4WD .....	20.6	15.9	20.3	17.6
GM RAINIER 2WD .....	20.4	15.6	20.3	17.4	Ford RANGER 4WD .....	20.3	15.8	19.4	17.3
GM SRX AWD .....	20.4	15.3	21.1	17.4	GM S10 4WD .....	19.7	15.1	19.3	16.8
GM BRAVADA AWD .....	20.2	15.2	20.7	17.3	Mazda B4000 4WD .....	19.6	15.2	18.8	16.7
GM ENVOY 4WD .....	20.2	15.2	20.7	17.3	LARGE PICKUP				
GM TRAILBLAZER 4WD .....	20.2	15.2	20.7	17.3	Nissan FRONTIER 2WD .....	26.5	20.8	25.2	22.6
Isuzu ASCENDER 4WD .....	19.9	15.1	20.1	17.0	GM CANYON CREW CAB 2WD .....	24.4	18.8	24.0	20.9
GM ENVOY XL 2WD .....	19.9	15.5	19.2	17.0	GM COLORADO CREW CAB 2WD .....	24.4	18.8	24.0	20.9
GM RAINIER AWD .....	19.8	15.1	20.0	16.9	GM CANYON CREW CAB 4WD .....	22.1	16.8	22.2	18.9
GM TRAILBLAZER EXT 4WD .....	19.7	15.1	19.8	16.9	GM COLORADO CREW CAB 4WD .....	22.1	16.8	22.2	18.9
Isuzu ASCENDER 2WD .....	19.5	15.1	19.1	16.6	Nissan FRONTIER V6-2WD .....	21.4	16.6	20.7	18.3
Ford MOUNTAINEER 4WD .....	19.4	14.8	19.3	16.5	Ford EXPLORER SPORT TRAC 2WD ..	20.9	15.8	21.2	17.9
GM TRAILBLAZER EXT 2WD .....	19.3	14.9	19.1	16.5	GM C1500 SIERRA 2WD .....	20.5	16.0	19.7	17.5
Ford MOUNTAINEER 2WD .....	19.3	14.6	19.5	16.5	GM C1500 SILVERADO 2WD .....	20.5	15.9	19.8	17.5
Nissan FX45 AWD .....	19.3	14.8	19.2	16.5	Nissan FRONTIER V6-4WD .....	20.2	15.7	19.4	17.2
Mercedes-Benz ML350 .....	19.2	15.2	18.0	16.4	GM SSR 2WD .....	20.1	15.8	19.2	17.1
VW TOUAREG .....	19.2	14.5	19.5	16.4	Ford EXPLORER SPORT TRAC 4WD ..	20.1	15.4	20.0	17.2
Ford MOUNTAINEER 4WD .....	19.1	14.5	19.3	16.3	GM C1500 AVALANCHE 2WD .....	19.9	15.3	19.6	17.0
GM ENVOY XL 4WD .....	19.1	14.6	18.9	16.3	Ford F150 2WD .....	19.5	15.1	19.1	16.7
Chrysler DURANGO 2WD .....	19.0	14.3	19.4	16.2	GM K1500 SIERRA 4WD .....	18.9	14.7	18.3	16.1
GM C1500 YUKON 2WD .....	18.9	14.6	18.5	16.1	Toyota TUNDRA 2WD .....	18.9	14.7	18.1	16.1
GM C1500 TAHOE 2WD .....	18.8	14.4	18.6	16.0	GM K1500 SILVERADO 4WD .....	18.9	14.7	18.2	16.1
GM ESCALADE 2WD .....	18.6	14.5	17.9	15.9	Chrysler RAM 1500 2WD .....	18.6	14.0	19.0	15.9
GM C1500 YUKON XL 2WD .....	18.5	14.2	18.4	15.8	Ford F150 4WD .....	18.6	14.3	18.3	15.8
Ford EXPEDITION 2WD .....	18.4	14.1	18.3	15.7	GM K1500 AVALANCHE 4WD .....	18.3	14.0	18.1	15.6
GM K1500 TAHOE 4WD .....	18.3	13.9	18.3	15.6	GM K1500 AVALANCHE AWD .....	18.2	13.9	18.3	15.6
GM K1500 YUKON 4WD .....	18.3	13.9	18.3	15.6	Toyota TUNDRA 4WD .....	18.1	14.2	17.3	15.4
GM C1500 SUBURBAN 2WD .....	18.3	14.0	18.1	15.6	Nissan TITAN.....	18.8	13.3	18.5	15.3
GM K1500 YUKON XL 4WD .....	18.3	13.9	18.3	15.6	Chrysler RAM 1500 4WD .....	17.3	13.1	17.4	14.8
GM K1500 SUBURBAN AWD .....	18.2	13.9	18.3	15.6	GM K1500 SIERRA AWD .....	17.2	13.1	17.1	14.7
GM K1500 TAHOE AWD .....	18.2	13.9	18.3	15.6	GM K1500 SILVERADO AWD .....	17.1	13.2	16.5	14.5
GM K1500 SUBURBAN 4WD .....	18.2	13.9	18.3	15.6	Ford F150 NATURAL GAS .....	16.2	12.3	16.1	13.8
Mercedes-Benz ML500 .....	18.2	14.3	17.2	15.5	GM C2500 SILVERADO .....	12.7	10.0	12.1	10.8
Porsche CAYENNE .....	18.2	13.8	18.5	15.6					
Toyota SEQUOIA 2WD .....	18.2	14.0	17.8	15.5					
Nissan PATHFINDER ARMADA 2WD ..	18.1	13.5	19.0	15.5					
Toyota SEQUOIA 4WD .....	17.9	13.9	17.3	15.2					
Ford AVIATOR 2WD .....	17.6	13.2	18.1	15.1					
GM K1500 YUKON AWD .....	17.6	13.4	17.5	15.0					
Nissan PATHFINDER ARMADA 4WD ..	17.4	13.1	18.0	14.9					
GM K1500 YUKON XL AWD .....	17.4	13.3	17.4	14.9					
Porsche CAYENNE TURBO .....	17.4	12.9	18.4	14.9					
Ford EXPEDITION 4WD .....	17.4	13.3	17.2	14.8					
Chrysler DURANGO 4WD .....	17.3	13.1	17.5	14.8					
GM ESCALADE EXT AWD .....	17.2	13.1	17.1	14.7					
GM ESCALADE ESV AWD .....	17.2	13.1	17.1	14.7					
GM ESCALADE AWD .....	17.2	13.1	17.1	14.7					
Ford AVIATOR 4WD .....	17.2	13.0	17.4	14.7					
Ford NAVIGATOR 2WD .....	17.0	12.7	17.7	14.5					
Toyota LAND CRUISER WAGON 4WD .	17.0	13.1	16.7	14.5					
Toyota LX 470 .....	17.0	13.1	16.7	14.5					
Mercedes-Benz G55 AMG .....	16.7	13.5	15.1	14.2					
Mercedes-Benz G500 .....	15.7	12.6	14.4	13.4					

## Appendix C

### City/Highway Driving

Inherent in the "Combined" or "55/45" MPG calculation is the apportionment of the miles into those for which the "city" MPG number is an appropriate measure and those for which the "highway" MPG number is also appropriate.

If the travel of a vehicle or a group of vehicles can be divided into, say, two modes of travel, then the MPG for that total travel can be calculated as:

$$\text{MPG}_{\text{AVE}} = \frac{\text{Total Miles}}{\text{Total Gallons}}$$

If the two modes of travel are urban (represented by the city MPG) and non-urban (represented by the highway MPG), then

$$\text{MPG}_{\text{AVE}} = \frac{\text{Urban Miles} + \text{Non-Urban Miles}}{\text{Urban Gallons} + \text{Non-Urban Gallons}}$$

Noting that gallons =  $\frac{\text{Miles}}{\text{MPG}}$

$$\text{MPG}_{\text{AVE}} = \frac{\frac{\text{Urban Miles}}{\text{City MPG}} + \frac{\text{Non-Urban Miles}}{\text{Highway MPG}}}{\frac{\text{Urban Miles}}{\text{City MPG}} + \frac{\text{Non-Urban Miles}}{\text{Highway MPG}}}$$

and since city fraction is defined as urban miles/total miles, if we divide top and bottom by total miles (which equals urban miles plus non-urban miles), we get

$$\text{MPG}_{\text{AVE}} = \frac{1}{\frac{\text{City Fraction}}{\text{City MPG}} + \frac{\text{Highway Fraction}}{\text{Highway MPG}}}$$

Looking at just city fraction (CF), since highway fraction = 1-CF, and the value for city fraction, we obtain

$$\text{MPG}_{\text{AVE}} = \frac{1}{\frac{\text{City Fraction}}{\text{City MPG}} + \frac{1-\text{CF}}{\text{Highway MPG}}}$$



## Appendix C

### City/Highway Driving

For the case where CF = 0.55, we get the "55/45" MPG definition, namely,

$$\text{MPG}_{55/45} = \frac{1}{\frac{0.55}{\text{City MPG}} + \frac{0.45}{\text{Highway MPG}}}$$

When the combined MPG value was first introduced in the early 1970s, the appropriate value was 55 percent for the city fraction and 45 percent for the highway fraction. Even though these values have been institutionalized, for example, in the fuel economy standards, they were changing. They were changing before the 1970s and continue to change. The values, obtained from the Department of Transportation's VM-1 tables, are listed in Table D-1. Over the years, the city fraction has increased, reflecting the larger growth in urban vehicle miles traveled (VMT). This would be expected to have a larger negative effect on combined MPG since a higher city fraction weights the city MPG more, and the city MPG is almost always lower than the highway MPG.

The city fractions and MPG values used for Figure C1 which shows the effect of CF on average MPG are given in the Tables below. The values are all derived from the DOT VM-1 tables published yearly by the U.S. Department of Transportation in their publication *Highway Statistics*.

For the calculations for cars, the car vector was used; for trucks, the truck vector was used; and for the "both" calculation, the "both" vector was used. Cars and light trucks may have had different city fractions in the past, but they are essentially the same now.

Figure C1 shows the trends in adjusted city/highway-weighted MPG versus time for cars, trucks, and cars and trucks combined. For each strata on this figure, one line shows the values as estimated with a constant 55/45 value for the city fraction/highway fraction; the other line shows the value using the actual values from Table C-1.

## Appendix C

### City/Highway Driving

If the adjusted MPG values provide an improved estimate of the MPG likely to be achieved in actual use, then accounting for the increase in city fraction should improve the estimate. In this way, the combined car and light truck Lab MPG number of 24.4 MPG can be adjusted to 20.8 using the 0.90 and 0.78 city and highway fuel economy adjustment factors, and if the change in city fraction is accounted for, a value of 20.4 MPG for the on-road MPG of the combined model year 2004 new vehicle fleet is obtained.

### Fuel Economy by Model Year The Influence of City Driving

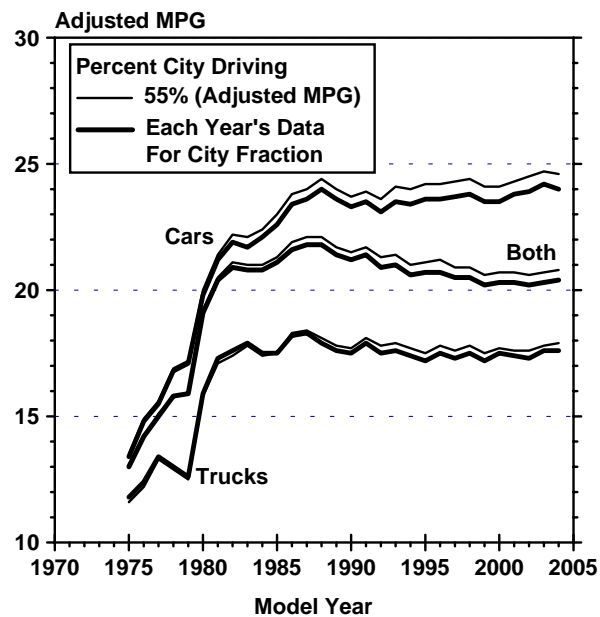


Figure C1

## Appendix C

### City/Highway Driving

Table C-1 City Fraction from 1966 to 2001

Year	Cars	Trucks	Both Cars and Trucks
1966	50.6	39.5	49.4
1967	52.0	41.4	50.9
1968	52.3	41.0	51.0
1969	52.9	40.6	51.5
1970	53.9	40.3	52.3
1971	53.9	40.7	52.3
1972	55.7	43.3	54.0
1973	56.4	45.2	54.8
1974	56.9	46.3	55.2
1975	57.4	46.9	55.7
1976	58.5	47.4	56.6
1977	59.0	47.6	56.9
1978	59.5	47.8	57.2
1979	59.7	48.1	57.3
1980	59.8	48.6	57.5
1981	59.5	48.4	57.2
1982	60.8	49.0	58.3
1983	61.6	50.5	59.2
1984	62.1	52.2	59.9
1985	62.1	55.1	60.4
1986	61.9	57.6	60.9
1987	61.4	59.7	61.0
1988	61.6	60.1	61.2
1989	61.5	60.2	61.2
1990	61.4	60.3	61.1
1991	61.2	60.3	60.9
1992	62.6	61.8	62.3
1993	63.4	62.7	63.2
1994	63.4	62.7	63.1
1995	63.5	62.6	63.2
1996	63.4	62.3	63.0
1997	63.3	61.5	62.7
1998	62.8	61.6	62.4
1999	62.7	61.0	62.0
2000	62.9	61.0	62.2
2001	62.7	60.3	61.9

## Appendix C

### City/Highway Driving

Table C-2 Adjusted Fuel Economy of 1975 to 2003 Cars

MODEL YEAR	SALES (000)	FRAC	CITY MPG	HWY MPG	55/45 MPG	PERCENT CITY	REVISED MPG
1975	8237	0.806	12.3	15.2	13.5	57.4%	13.4
1976	9722	0.788	13.7	16.6	14.9	58.5%	14.8
1977	11300	0.800	14.4	17.4	15.6	59.0%	15.5
1978	11175	0.773	15.5	19.1	16.9	59.5%	16.8
1979	10794	0.778	15.9	19.2	17.2	59.7%	17.1
1980	9443	0.835	18.3	22.6	20.0	59.8%	19.8
1981	8733	0.827	19.6	24.2	21.4	59.5%	21.2
1982	7819	0.803	20.1	25.5	22.2	60.8%	21.9
1983	8002	0.777	19.9	25.5	22.1	61.6%	21.7
1984	10675	0.761	20.2	26.0	22.4	62.1%	22.1
1985	10791	0.746	20.7	26.8	23.0	62.1%	22.6
1986	11015	0.717	21.3	27.7	23.8	61.9%	23.4
1987	10731	0.722	21.5	28.0	24.0	61.4%	23.6
1988	10736	0.702	21.8	28.5	24.4	61.6%	24.0
1989	10018	0.693	21.4	28.3	24.0	61.5%	23.6
1990	8810	0.698	21.1	28.1	23.7	61.4%	23.3
1991	8524	0.678	21.2	28.3	23.9	61.2%	23.5
1992	8108	0.666	20.8	28.3	23.6	62.6%	23.1
1993	8457	0.640	21.3	28.8	24.1	63.4%	23.5
1994	8414	0.602	21.1	28.8	24.0	63.4%	23.4
1995	9396	0.620	21.2	29.3	24.2	63.5%	23.6
1996	7890	0.600	21.2	29.3	24.2	63.4%	23.6
1997	8343	0.577	21.3	29.4	24.3	63.3%	23.7
1998	7971	0.551	21.3	29.6	24.4	62.8%	23.8
1999	8379	0.550	21.1	29.2	24.1	62.7%	23.5
2000	9128	0.551	21.1	29.1	24.1	62.9%	23.5
2001	8408	0.539	21.4	29.3	24.3	62.7%	23.8
2002	8302	0.515	21.6	29.3	24.5	62.7%	23.9
2003	7705	0.493	21.8	29.7	24.7	62.7%	24.2
2004	8577	0.517	21.6	29.6	24.6	62.7%	24.0

## Appendix C

### City/Highway Driving

Table C-3 Adjusted Fuel Economy of 1975 to 2003 Trucks

MODEL YEAR	SALES (000)	FRAC	CITY MPG	HWY MPG	55/45 MPG	PERCENT CITY	REVISED MPG
1975	1987	0.194	10.9	12.7	11.6	46.9%	11.8
1976	2612	0.212	11.5	13.2	12.2	47.4%	12.4
1977	2823	0.200	12.6	14.1	13.3	47.6%	13.4
1978	3273	0.227	12.4	13.7	12.9	47.8%	13.0
1979	3088	0.222	12.1	13.1	12.5	48.1%	12.6
1980	1863	0.165	14.8	17.1	15.8	48.6%	15.9
1981	1821	0.173	16.0	18.6	17.1	48.4%	17.3
1982	1914	0.197	16.3	19.0	17.4	49.0%	17.6
1983	2300	0.223	16.5	19.6	17.8	50.5%	17.9
1984	3345	0.239	16.1	19.3	17.4	52.2%	17.5
1985	3669	0.254	16.2	19.4	17.5	55.1%	17.5
1986	4350	0.283	16.9	20.2	18.3	57.6%	18.2
1987	4134	0.278	16.9	20.7	18.4	59.7%	18.3
1988	4559	0.298	16.5	20.4	18.1	60.1%	17.9
1989	4435	0.307	16.3	20.1	17.8	60.2%	17.6
1990	3805	0.302	16.1	20.2	17.7	60.3%	17.5
1991	4049	0.322	16.4	20.7	18.1	60.3%	17.9
1992	4064	0.334	16.1	20.4	17.8	61.8%	17.5
1993	4754	0.360	16.1	20.7	17.9	62.7%	17.6
1994	5572	0.398	16.0	20.4	17.7	62.7%	17.4
1995	5749	0.380	15.8	20.2	17.5	62.6%	17.2
1996	5254	0.400	16.0	20.7	17.8	62.3%	17.5
1997	6124	0.423	15.8	20.4	17.6	61.5%	17.3
1998	6485	0.449	16.0	20.8	17.8	61.6%	17.5
1999	6854	0.450	15.7	20.3	17.5	61.0%	17.2
2000	7447	0.449	16.0	20.5	17.7	61.0%	17.5
2001	7189	0.461	15.9	20.2	17.6	60.3%	17.4
2002	7804	0.485	15.8	20.3	17.6	60.3%	17.3
2003	7917	0.507	16.0	20.7	17.8	60.3%	17.6
2004	8023	0.483	16.0	20.8	17.9	60.3%	17.6

## Appendix C

### City/Highway Driving

Table C-4 Adjusted Fuel Economy of 1975 to 2003 Light-Duty Vehicles

MODEL YEAR	SALES (000)	FRAC	CITY MPG	HWY MPG	55/45 MPG	PERCENT CITY	REVISED MPG
1975	10224	1.000	12.0	14.6	13.1	55.7%	13.0
1976	12334	1.000	13.2	15.7	14.2	56.6%	14.2
1977	14123	1.000	14.0	16.6	15.1	56.9%	15.0
1978	14448	1.000	14.7	17.5	15.8	57.2%	15.8
1979	13882	1.000	14.9	17.4	15.9	57.3%	15.9
1980	11306	1.000	17.6	21.5	19.2	57.5%	19.1
1981	10554	1.000	18.8	23.0	20.5	57.2%	20.4
1982	9732	1.000	19.2	23.9	21.1	58.3%	20.9
1983	10302	1.000	19.0	23.9	21.0	59.2%	20.8
1984	14020	1.000	19.1	24.0	21.0	59.9%	20.8
1985	14460	1.000	19.3	24.4	21.3	60.4%	21.1
1986	15365	1.000	19.9	25.1	21.9	60.9%	21.6
1987	14865	1.000	20.0	25.5	22.1	61.0%	21.8
1988	15295	1.000	19.9	25.5	22.1	61.2%	21.8
1989	14453	1.000	19.5	25.2	21.7	61.2%	21.4
1990	12615	1.000	19.3	25.1	21.5	61.1%	21.2
1991	12573	1.000	19.4	25.3	21.7	60.9%	21.4
1992	12172	1.000	18.9	25.0	21.3	62.3%	20.9
1993	13211	1.000	19.1	25.2	21.4	63.2%	21.0
1994	13986	1.000	18.7	24.7	21.0	63.1%	20.6
1995	15145	1.000	18.8	25.0	21.1	63.2%	20.7
1996	13144	1.000	18.7	25.1	21.2	63.0%	20.7
1997	14467	1.000	18.6	24.8	20.9	62.7%	20.5
1998	14457	1.000	18.5	24.9	20.9	62.4%	20.5
1999	15233	1.000	18.3	24.4	20.6	62.1%	20.2
2000	16574	1.000	18.4	24.5	20.7	62.2%	20.3
2001	15598	1.000	18.4	24.3	20.7	61.9%	20.3
2002	16106	1.000	18.3	24.1	20.6	61.9%	20.2
2003	15623	1.000	18.4	24.3	20.7	61.9%	20.3
2004	16601	1.000	18.5	24.6	20.8	61.9%	20.4

## Appendix C

### City/Highway Driving

Considering the trends in the fuel economy of cars, light trucks, and the combined fleet, it is usually the case that the combined 55/45 MPG value is considered. In addition to the city fraction, the relationship between the highway MPG and the city MPG influences the result of the calculation. The trend in the ratio of highway MPG to city MPG is shown on Figure C2. The overall influence since 1975 has tended toward improved 55/45 MPG, since the highway MPG values have gone up slightly or remained about the same.

### Ratio: Highway to City Fuel Economy

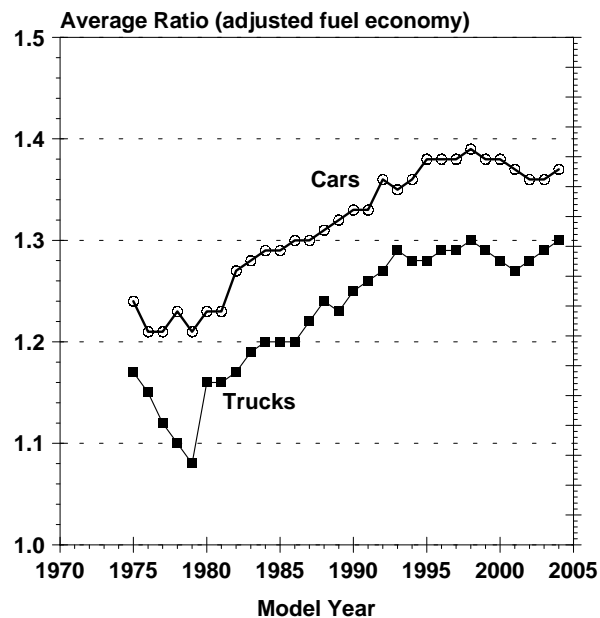


Figure C2

# Appendix D

Table D-1

## Cars with the Lowest Adjusted MPG by Model Year

Model Year	Manufacturer	Model Name	EPA Size Class	Inertia Weight	Drive	Trans	Gears	Fuel Induct.	HP	CID	<- Fuel Economy -> City Hwy 55/45		
1975	GM	Toronado	Large	5500	Front	Auto		Carb	175	455	7.7	9.4	8.4
1976	Jaguar	Jensen	Two Seater	4500	Rear	Auto		Carb	250	440	7.7	10.0	8.6
1977	Rolls Royce	Rolls Royce	Compact	5500	Rear	Auto		Carb	170	412	7.8	8.9	8.3
1978	Dodge	Monaco	Midsize	5000	Rear	Auto	3	Carb	240	440	7.5	8.7	8.0
1979	Aston Martin	Aston Martin	Subcompact	4500	Rear	Manual	5	Carb	60	326	6.8	9.7	7.9
1980	Aston	Aston Martin	Subcompact	4500	Rear	Manual	5	Carb	275	326	6.8	9.7	7.9
1981	Peugot	605	Compact	3500	Rear	Auto	3	Carb	132	174	3.2	6.0	4.0
1982	Masserati	Quattroporte	Midsize	5000	Rear	Lockup	3	Carb	288	301	7.7	9.8	8.5
1983	Masserati	Quattroporte	Midsize	5000	Rear	Lockup	3	Carb	288	301	7.7	9.8	8.5
1984	Masserati	Quattroporte	Midsize	5000	Rear	Lockup	3	Carb	288	301	7.7	9.8	8.5
1985	Masserati	Quattroporte	Midsize	5000	Rear	Lockup	3	Carb	288	301	7.7	9.8	8.5
1986	Lamborghini	Countach	Two Seater	3500	Rear	Manual	5	Port	420	315	6.1	10.5	7.5
1987	Lamborghini	Countach	Two Seater	3500	Rear	Manual	5	Port	420	315	6.1	10.5	7.5
1988	Lamborghini	Countach	Two Seater	3500	Rear	Manual	5	Port	420	315	6.1	10.5	7.5
1989	Lamborghini	Countach	Two Seater	3500	Rear	Manual	5	TBI	420	315	6.1	10.5	7.5
1990	Aston Martin	Aston Martin	Subcompact	5000	Rear	Lockup	3	Port	240	326	8.4	10.8	9.3
1991	Vector	W8	Two Seater	4000	Rear	Auto	3	Port	450	365	7.4	10.7	8.6
1992	Vector	W8	Two Seater	4000	Rear	Auto	3	Port	450	365	7.4	10.7	8.6
1993	Vector	W8	Two Seater	4000	Rear	Auto	3	Port	450	365	7.4	10.7	8.6
1994	Lamborghini	DB132	Two Seater	4000	4wd	Manual	5	Port	492	348	9.4	14.1	11.0
1995	Ferrari	F50	Two Seater	3000	Rear	Manual	6	Port	510	287	7.6	11.0	8.8
1996	Lamborghini	M12	Two Seater	4000	Rear	Manual	5	Port	492	348	8.9	12.6	10.3
1997	Lamborghini	DB132	Two Seater	4000	4wd	Manual	5	Port	492	348	9.2	14.1	10.9
1998	Ferrari	550	Two Seater	4000	Rear	Manual	6	Port	475	334	9.1	14.7	11.0
1999	Ferrari	550	Two Seater	4000	Rear	Manual	6	Port	475	334	9.0	14.0	10.7
2000	Ferrari	550	Two Seater	4000	Rear	Manual	6	Port	475	334	8.5	13.0	10.0
2001	Ferrari	550	Two Seater	4000	Rear	Manual	6	Port	475	334	8.5	13.0	10.0
2002	Lamborghini	L147	Two Seater	4000	4wd	Manual	6	Port	580	378	9.1	12.7	10.4
2003	Ferrari	Enzo	Two Seater	3500	Rear	Auto	6	Port	646	366	7.6	12.3	9.9
2004	Lamborghini	L147	Two Seater	4000	4wd	Manual	6	Port	580	378	9.1	13.3	10.6



# Appendix D

Table D-2

## Cars with the Highest Adjusted MPG by Model Year

Model Year	Manufacturer	Model Name	EPA Size Class	Inertia Weight	Drive	Trans	Gears	Fuel Induct	HP	CID	<- Fuel Economy -> City Hwy. 55/45		
1975	Honda	Civic CVCC	Minicompact	2000	Front	Manual	5	Carb	52	90	25.4	33.0	28.3
1976	Honda	Civic CVCC	Minicompact	2000	Front	Manual	3	Carb	60	91	28.4	33.4	30.5
1977	Honda	Civic CVCC	Minicompact	2000	Front	Manual		Carb	60	91	35.7	40.2	37.6
1978	VW	Rabbit	Subcompact	2250	Front	Manual	4	Diesel	48	90	35.2	40.7	37.5
1979	VW	Rabbit	Subcompact	2250	Front	Manual	5	Diesel	48	90	36.7	42.6	39.1
1980	VW	Rabbit	Subcompact	2250	Front	Manual	5	Diesel	48	90	37.7	44.1	40.3
1981	VW	Rabbit	Subcompact	2250	Front	Manual	4	Diesel	52	97	37.9	45.4	40.9
1982	VW	Rabbit	Subcompact	2250	Front	Manual	4	Diesel	52	97	40.9	45.1	42.7
1983	Nissan	Sentra	Subcompact	2250	Front	Manual	4	Diesel	55	103	43.4	47.8	45.3
1984	Honda	Civic	Two Seater	2000	Front	Manual	5	Carb	60	82	45.7	51.2	48.1
1985	Suzuki	SA310	Minicompact	1750	Front	Manual	5	Carb	48	61	47.4	52.7	49.6
1986	Geo	Sprint	Minicompact	1750	Front	Manual	5	Carb	46	61	55.4	59.6	57.2
1987	Geo	Sprint	Minicompact	1750	Front	Manual	5	Carb	46	61	53.7	58.1	55.6
1988	Geo	Sprint	Minicompact	1750	Front	Manual	5	Carb	46	61	53.7	58.1	55.6
1989	Honda	Civic CRX	Two Seater	2000	Front	Manual	5	Port	62	91	49.7	55.1	52.0
1990	Geo	Metro XFI	Subcompact	1750	Front	Manual	5	TBI	49	61	53.2	58.3	55.4
1991	Geo	Metro XFI	Subcompact	1750	Front	Manual	5	TBI	55	61	53.3	58.3	55.4
1992	Geo	Metro XFI	Subcompact	1750	Front	Manual	5	TBI	55	61	53.2	58.3	55.4
1993	Geo	Metro XFI	Subcompact	1750	Front	Manual	5	TBI	55	61	53.2	58.3	55.4
1994	Geo	Metro XFI	Subcompact	1750	Front	Manual	5	TBI	55	61	54.0	58.3	55.8
1995	Honda	Civic HB	Subcompact	2250	Front	Manual	5	Port	91	91	46.5	58.3	55.8
1996	Suzuki	Swift	Subcompact	2000	Front	Manual	5	TBI	55	61	44.6	49.2	46.5
1997	Geo	Metro	Subcompact	2000	Front	Manual	5	TBI	55	61	44.0	49.3	46.2
1998	Geo	Metro	Subcompact	2000	Front	Manual	5	TBI	55	60	42.8	49.5	45.6
1999	VW	Beetle	Subcompact	3000	Front	Manual	5	Diesel	90	116	41.7	49.0	44.7
2000	Honda	Insight	Two Seater	2000	Front	Manual	5	Port	67	61	61.4	69.6	64.9
2001	Honda	Insight	Two Seater	2000	Front	Manual	5	Port	67	61	60.7	68.2	63.8
2002	Honda	Insight	Two Seater	2000	Front	Manual	5	Port	67	61	60.8	68.0	63.8
2003	Honda	Insight	Two Seater	2000	Front	Manual	5	Port	67	61	60.9	68.0	63.9
2004	Honda	Insight	Two Seater	2000	Front	Manual	5	Port	67	61	60.4	65.6	62.6

# Appendix D

Table D-3

## Trucks with the Lowest Adjusted Fuel Economy by Model Year

Model Year	Manufacturer	Model Name	Size Class	Inertia Weight	Drive	Trans.	Gears	Fuel Induct	HP	CID	<Fuel Economy > City Hwy. 55/45		
1975	Ford	F250	Large Pickup	5000	Rear	Auto		Carb	150	360	7.5	7.8	7.6
1976	GM	P20	Midsize Van	6500	Rear	Auto		Carb	245	454	7.3	8.5	7.8
1977	Toyota	Land Cruiser	Midsize SUV	4500	Rear	Auto		Carb	125	258	7.4	8.9	8.0
1978	GM	C20 Suburban	Large SUV	5500	Rear	Auto		Carb	185	454	8.0	8.1	8.0
1979	Ford	Pickup	Large Pickup	5500	Rear	Auto	3	Carb	270	460	8.1	7.7	7.9
1980	GM	Cab Chassis	Large Pickup	6000	Rear	Lockup	3	Carb	155	350	8.1	8.8	8.4
1981	Chrysler	B250 Van	Midsize Van	5500	Rear	Auto	3	Carb	170	360	9.0	10.1	9.4
1982	GM	G35 Sportvan	Large Van	5500	Rear	Lockup	3	Carb	165	350	9.5	10.8	10.1
1983	Ford	E250 Econoline	Large Van	5500	Rear	Auto	3	Carb	143	351	9.8	10.8	10.3
1984	Chrysler	B350 Wagon	Large Van	5500	Rear	Auto	3	Carb	175	360	8.7	10.7	9.5
1985	Ford	E250 Econoline	Large Van	5500	Rear	Auto	3	Carb	154	351	9.5	9.6	9.6
1986	Chrysler	B350 Wagon	Large Van	5500	Rear	Auto	3	Carb	170	360	9.8	11.2	10.4
1987	Chrysler	A150 Ramcharger	Midsize SUV	5000	4wd	Auto	3	Carb	175	360	9.3	11.2	10.1
1988	Chrysler	D100 Pickup	Large Pickup	4000	Rear	Lockup	3	TBI	122	239	14.7	17.8	15.9
1989	Chrysler	B350 Wagon	Large Van	5500	Rear	Auto	3	TBI	145	360	9.9	11.0	10.4
1990	GM	C1500 Pickup	Large Pickup	4500	Rear	Auto	3	TBI	230	454	9.5	11.0	10.1
1991	Chrysler	W250 Pickup	Large Pickup	5500	4wd	Auto	3	TBI	190	360	9.4	12.6	10.6
1992	Chrysler	W250 Pickup	Large Pickup	5000	4wd	Auto	4	TBI	203	360	9.3	13.0	10.7
1993	GM	C1500 Pickup	Large Pickup	4500	Rear	Lockup	4	TBI	255	454	9.6	12.3	10.7
1994	Chrysler	B150 Wagon	Midsize Van	5500	Rear	Lockup	4	Port	230	360	11.4	14.2	12.5
1995	Chrysler	B3500 Wagon	Large Van	5500	Rear	Lockup	4	Port	230	360	11.3	14.6	12.5
1996	Chrysler	Ram 1500 Pickup	Large Pickup	5500	4wd	Lockup	4	Port	230	360	11.0	15.2	12.6
1997	Chrysler	B3500 Wagon	Large Van	5500	Rear	Lockup	4	Port	230	360	10.9	14.7	12.3
1998	Ford	E250 Econoline	Large Van	6000	Rear	Lockup	4	Port	235	330	11.3	14.0	12.4
1999	Chrysler	B2500 Wagon	Large Van	6000	4wd	Lockup	4	Port	318	200	10.7	14.0	12.0
2000	Ford	F150	Large Pickup	6500	Rear	Lockup	4	Port	195	330	12.2	16.1	13.6
2001	GM	K1500 Sierra	Large Pickup	5500	4wd	Lockup	4	Port	300	365	11.2	14.0	12.3
2002	Chrysler	Ram 1500 Pickup	Large Pickup	6000	4wd	Lockup	4	Port	245	360	11.4	15.3	12.9
2003	GM	G1500 Chevy Van	Large Van	6000	Rear	Lockup	4	Port	300	354	9.6	14.0	11.2
2004	Ford	F150	Large Pickup	5500	4wd	Lockup	4	Port	260	330	11.9	15.2	13.2

# Appendix D

Table D-4

## Trucks with the Highest Adjusted Fuel Economy by Model Year

Model Year	Manufacturer	Model Name	Size Class	Inertia Weight	Drive	Trans.	Gears	Fuel Induct	HP	CID	< Fuel Economy > City Hwy. 55/45		
1975	Nissan	Pickup	Small Pickup	2750	Rear	Manual		Carb	107	119	18.3	24.8	20.8
1976	Ford	Courier	Midsized Pickup	3000	Rear	Manual		Carb	65	109	21.1	25.9	23.0
1977	Mazda	B1800 Pickup	Midsized Pickup	3000	Rear	Manual		Carb	67	110	25.0	31.1	27.4
1978	Ford	Courier	Midsized Pickup	3000	Rear	Manual		Carb	67	110	26.3	30.0	27.8
1979	Mazda	B2000	Midsized Pickup	3000	Rear	Manual	5	Carb	72	120	24.0	28.7	25.9
1980	Isuzu	Pickup	Small Pickup	2250	Front	Manual	5	Diesel	48	90	35.9	41.6	38.3
1981	Isuzu	Pickup	Small Pickup	2250	Front	Manual	5	Diesel	52	97	33.4	39.7	36.0
1982	VW	Pickup	Small Pickup	2250	Front	Manual	4	Diesel	52	97	36.6	37.4	37.0
1983	VW	Pickup	Small Pickup	2250	Front	Manual	4	Diesel	52	97	37.8	38.7	38.2
1984	Isuzu	P'UP Pickup	Small Pickup	2750	Rear	Manual	4	Diesel	62	137	34.6	38.3	36.1
1985	Isuzu	P'UP Pickup	Small Pickup	2750	Rear	Manual	4	Diesel	62	137	34.6	38.3	36.1
1986	Isuzu	P'UP Pickup	Small Pickup	2750	Rear	Manual	4	Diesel	62	137	34.6	38.3	36.1
1987	Isuzu	P'UP Pickup	Midsized Pickup	3000	Rear	Manual	4	Diesel	60	137	34.6	38.8	36.4
1988	Suzuki	Samari	Small SUV	2250	4wd	Manual	5	Carb	64	81	27.5	29.1	28.2
1989	Suzuki	Sidekick	Small SUV	2250	4wd	Manual	5	Carb	64	79	27.9	28.8	28.3
1990	Suzuki	Samari	Small SUV	2500	4wd	Manual	5	TBI	66	79	28.1	28.7	28.4
1991	Suzuki	Samari	Small SUV	2500	Rear	Manual	5	TBI	66	79	28.1	28.6	28.4
1992	Suzuki	Samari	Small SUV	2500	Rear	Manual	5	TBI	66	79	28.1	28.7	28.4
1993	Suzuki	Samari	Small SUV	2500	Rear	Manual	5	TBI	66	79	28.1	28.7	28.4
1994	Suzuki	Samari	Small SUV	2500	4wd	Manual	5	TBI	66	79	28.1	28.7	28.4
1995	Suzuki	Samari	Small SUV	2500	4wd	Manual	5	TBI	66	79	28.2	28.7	28.4
1996	GM	Sonoma	Midsized Pickup	3000	Rear	Manual	5	Port	118	134	23.9	31.0	26.7
1997	GM	Sonoma	Midsized Pickup	3000	Rear	Manual	5	Port	118	134	23.9	31.0	26.7
1998	Suzuki	X 90	Small SUV	2750	4wd	Manual	5	Port	95	97	24.9	28.0	26.2
1999	Geo	Tracker	Small SUV	3000	4wd	Manual	5	Port	97	97	25.3	27.9	26.4
2000	Suzuki	Vitara	Small SUV	2750	Rear	Manual	5	Port	97	97	25.2	28.0	26.4
2001	Toyota	RAV 4	Small SUV	3000	Front	Manual	5	Port	148	122	24.8	30.7	27.2
2002	Toyota	RAV 4	Small SUV	3000	Front	Manual	5	Port	148	122	23.7	30.7	26.4
2003	Toyota	RAV 4	Small SUV	3000	Front	Manual	5	Port	148	122	24.8	30.7	27.2
2004	Toyota	RAV 4	Small SUV	3000	Front	Lockup	4	Port	144	161	24.4	29.0	26.3

# Appendix D

Table D-5

## Sales Weighted Percentile Distribution of Adjusted Car Fuel Economy

Model Year	<----- Percentile Level ----->>													Actual Average
	0%	1%	5%	10%	20%	25%	50%	75%	80%	90%	95%	99%	100%	
1975	8.4	9.0	9.8	10.1	11.0	11.2	13.1	16.7	17.9	20.9	23.3	27.4	28.3	13.5
1976	8.6	10.4	11.2	11.7	12.3	12.7	14.6	17.3	18.9	22.9	24.5	28.2	30.5	14.9
1977	8.3	10.6	11.6	12.4	13.6	14.0	15.0	17.3	18.9	24.3	28.0	33.8	37.6	15.6
1978	8.0	11.3	12.6	13.2	14.2	14.9	16.9	19.8	21.3	25.0	28.2	32.7	37.5	16.9
1979	7.9	12.0	13.1	13.7	14.7	15.1	16.9	20.4	21.9	24.9	26.5	31.0	39.1	17.2
1980	7.9	13.9	14.8	15.9	17.2	17.6	19.8	23.1	24.0	26.6	29.1	38.0	40.3	20.0
1981	4.0	14.6	15.8	17.0	18.3	18.6	21.6	25.5	26.2	28.6	31.6	37.9	40.9	21.4
1982	8.5	15.4	16.6	17.0	18.2	19.1	23.4	26.0	27.2	29.6	32.6	38.4	42.7	22.2
1983	8.5	16.3	16.5	17.0	17.8	18.4	22.3	26.7	28.0	31.2	33.4	36.6	45.3	22.1
1984	8.5	16.6	17.0	17.3	18.1	19.3	22.9	26.5	27.3	29.9	32.8	38.2	48.0	22.4
1985	8.5	17.6	17.8	18.4	19.5	19.9	23.1	26.7	27.7	29.9	33.6	39.0	49.6	23.0
1986	7.5	18.3	18.8	19.6	20.4	20.6	24.5	26.8	27.9	30.3	33.9	39.6	57.2	23.8
1987	7.5	18.4	18.7	19.3	21.0	21.4	24.1	27.4	28.0	30.7	31.8	38.6	55.6	24.0
1988	7.5	18.3	19.4	19.6	21.5	22.6	24.6	27.5	28.1	31.0	32.6	38.6	55.6	24.4
1989	7.5	18.5	19.5	19.8	21.1	22.1	23.6	26.8	27.6	29.7	31.7	38.5	52.0	24.0
1990	9.3	18.3	19.3	19.6	21.6	21.7	23.6	26.5	26.9	29.0	31.6	35.5	55.4	23.7
1991	8.6	18.7	19.6	20.1	21.3	21.6	23.7	26.7	27.1	30.0	32.2	38.0	55.4	23.9
1992	8.6	18.5	19.4	20.2	21.1	21.1	23.0	26.2	26.7	29.6	32.5	40.8	55.4	23.6
1993	8.6	18.5	19.5	20.3	21.8	21.9	23.8	26.8	28.2	30.0	32.9	37.4	55.4	24.1
1994	11.0	18.6	19.7	20.1	21.3	21.9	23.4	26.8	27.5	29.5	31.6	37.6	55.8	24.0
1995	11.6	19.6	20.6	19.9	23.6	23.2	21.4	34.1	30.1	26.4	32.7	33.7	40.8	24.2
1996	10.3	19.6	19.9	20.3	22.0	22.1	23.5	26.8	27.6	30.6	32.6	35.9	46.5	24.2
1997	10.9	19.4	19.9	20.5	21.8	21.9	24.0	27.0	27.9	30.2	31.7	35.4	46.2	24.3
1998	11.0	19.4	19.7	20.9	22.0	22.2	23.8	26.5	27.8	31.0	31.6	33.6	45.6	24.4
1999	10.7	19.5	19.9	20.7	22.1	22.3	23.5	25.8	26.8	29.9	31.2	33.5	44.7	24.1
2000	10.0	19.1	20.3	20.7	22.2	22.3	23.2	25.8	26.8	29.4	30.8	33.5	64.9	24.1
2001	10.0	19.3	20.2	20.6	21.9	22.2	23.6	27.2	27.6	30.7	33.1	34.6	64.2	24.3
2002	10.4	18.9	20.4	20.9	22.4	22.7	24.0	26.8	27.3	29.8	32.7	35.5	63.9	24.5
2003	9.2	17.7	20.2	20.8	22.0	22.8	24.5	27.0	27.6	30.8	32.3	37.9	63.8	24.7
2004	10.6	17.7	19.8	20.7	21.7	22.3	24.5	27.4	27.6	30.4	32.1	37.1	62.6	24.6

# Appendix D

Table D-6

## Sales Weighted Percentile Distribution of Adjusted Truck Fuel Economy

Model Year	<----- Percentile Level ----->>													Actual Average
	0%	1%	5%	10%	20%	25%	50%	75%	80%	90%	95%	99%	100%	
1975	7.6	7.9	8.9	9.2	9.6	9.8	11.7	13.3	15.4	17.8	19.0	19.2	20.8	11.6
1976	7.8	9.0	9.6	10.0	10.4	10.5	11.9	14.1	15.6	17.2	19.7	21.6	23.0	24.5
1978	8.0	9.5	10.3	10.6	11.0	11.1	12.2	15.7	16.3	19.3	22.3	24.6	27.8	12.9
1979	7.9	8.0	9.2	9.6	10.3	10.7	12.1	15.5	16.1	19.4	20.7	25.3	25.9	12.5
1980	8.4	10.7	11.4	12.1	13.2	13.4	16.1	19.2	20.3	22.2	23.1	25.8	38.3	15.8
1981	9.4	11.4	12.5	13.4	14.8	15.2	16.1	20.3	21.6	25.0	26.6	31.2	36.0	17.1
1982	10.1	11.1	12.1	13.3	14.8	15.2	17.1	20.9	22.8	24.3	26.4	30.6	37.0	17.4
1983	10.3	11.1	12.1	13.6	14.9	15.4	18.3	22.0	22.8	25.1	26.5	30.0	38.2	17.8
1984	9.5	11.0	12.0	13.2	14.7	15.1	18.3	20.5	21.5	24.3	25.9	29.2	36.1	17.4
1985	9.6	11.4	12.5	13.7	14.0	14.8	18.7	20.8	21.7	23.7	25.0	28.4	36.1	17.5
1986	10.4	11.8	13.6	14.4	15.1	15.7	18.6	21.9	23.0	23.9	25.5	27.9	36.1	18.3
1987	10.1	11.6	13.9	14.3	15.1	16.1	18.6	21.5	22.8	23.9	26.1	27.9	36.4	18.4
1988	9.9	12.3	14.0	14.4	15.5	15.7	18.7	20.4	21.8	23.6	25.3	26.2	28.2	18.1
1989	10.4	11.8	13.9	14.6	15.3	15.6	18.8	20.3	20.6	23.0	24.6	25.2	28.3	17.8
1990	10.1	11.9	13.7	14.2	15.1	15.7	17.9	19.5	20.8	22.8	24.6	24.8	28.4	17.7
1991	28.4	25.5	22.8	22.3	18.5	21.2	16.9	17.9	12.5	15.1	13.0	13.3	22.8	18.1
1992	10.6	12.7	14.2	14.6	15.6	16.1	17.9	19.9	20.6	22.7	24.0	25.5	28.4	17.8
1993	10.7	13.2	14.2	14.8	15.7	16.3	18.2	19.9	20.3	22.3	24.4	25.4	28.4	17.9
1994	12.5	13.4	14.2	14.5	15.3	15.8	17.7	20.1	20.3	23.3	24.1	25.1	28.4	17.7
1995	12.5	13.3	14.1	14.3	15.4	15.6	17.4	19.6	19.9	22.3	24.4	25.1	28.4	17.5
1996	12.6	12.6	14.3	14.8	15.3	15.7	18.0	19.9	20.2	22.7	23.7	25.5	26.7	17.8
1997	12.3	13.6	14.2	15.0	15.5	16.0	17.5	19.3	20.0	22.0	24.1	25.2	26.7	17.6
1998	12.4	13.5	14.1	14.7	15.4	16.0	18.0	20.2	20.5	22.8	23.8	25.2	26.2	17.8
1999	11.9	13.4	14.0	14.4	15.4	15.9	17.6	19.4	20.2	21.2	23.0	25.2	26.4	17.5
2000	12.1	13.6	14.3	15.1	16.1	16.1	17.7	19.6	20.4	21.3	23.0	24.2	26.4	17.7
2001	12.3	12.9	14.0	14.7	15.8	16.0	17.3	19.7	20.1	21.7	23.3	24.7	27.2	17.6
2002	12.0	13.2	14.6	15.2	15.8	15.9	17.1	19.6	20.4	21.5	23.5	25.7	33.1	17.6
2003	11.2	13.8	14.4	15.0	15.6	16.1	17.4	20.2	20.7	22.1	23.5	25.3	34.1	17.8
2004	10.8	14.5	14.8	15.5	15.8	16.2	17.5	20.1	20.6	21.9	23.5	24.7	26.3	17.9

# Appendix E

Table E-1

Characteristics of 1975 to 2004 Cars

MODEL YEAR	SALES (000)	FRAC	<---- FUEL ECONOMY ---->				WGHT LB	VOL CU-FT	ENGINE		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
			LAB 55/45	ADJ CITY	ADJ HWY	ADJ 55/45			CID	HP							
1975	7274	0.711	15.8	12.3	15.1	13.4	4071		293	137	14.1	112	0.506	0.0332	27.6		
1976	8685	0.704	17.5	13.7	16.6	14.9	4044		288	134	14.4	111	0.500	0.0325	30.2		
1977	10027	0.710	18.4	14.4	17.4	15.6	3936	106.9	281	134	13.9	112	0.516	0.0337	31.0	1729	3316
1978	10018	0.693	20.0	15.6	19.2	17.0	3572	106.0	252	124	13.6	111	0.537	0.0343	30.6	1868	3251
1979	9727	0.701	20.3	16.0	19.3	17.3	3468	105.9	239	120	13.7	111	0.546	0.0340	30.1	1882	3210
1980	8774	0.776	23.5	18.3	22.6	20.0	3091	102.4	188	101	14.2	107	0.584	0.0323	31.1	2098	3201
1981	7935	0.752	25.1	19.5	24.2	21.4	3079	104.5	184	99	14.3	106	0.589	0.0320	33.1	2292	3479
1982	7007	0.720	26.1	20.1	25.6	22.3	3038	103.4	174	99	14.3	107	0.610	0.0322	34.2	2370	3549
1983	7065	0.686	25.7	19.8	25.4	22.0	3120	106.7	185	105	13.9	108	0.612	0.0333	34.6	2418	3695
1984	9672	0.690	26.3	20.2	26.0	22.4	3091	105.1	180	106	13.7	109	0.636	0.0341	35.0	2426	3677
1985	9807	0.678	26.9	20.6	26.7	23.0	3091	106.1	179	112	13.2	111	0.670	0.0358	35.7	2500	3799
1986	10136	0.660	28.0	21.4	27.8	23.9	3025	105.0	168	111	13.1	111	0.702	0.0362	36.3	2565	3823
1987	9923	0.668	28.2	21.5	28.1	24.0	3013	104.4	162	112	13.0	112	0.732	0.0367	36.4	2561	3807
1988	10122	0.662	28.6	21.9	28.6	24.5	3035	105.4	160	116	12.7	113	0.759	0.0376	37.3	2631	3940
1989	9557	0.661	28.2	21.4	28.4	24.1	3088	106.4	162	121	12.4	115	0.784	0.0387	37.3	2606	3979
1990	8434	0.669	27.8	21.1	28.1	23.8	3167	105.8	163	128	12.1	117	0.830	0.0402	37.7	2551	4004
1991	8158	0.649	28.0	21.2	28.3	23.9	3147	105.6	163	132	11.8	118	0.852	0.0415	37.8	2568	3998
1992	7800	0.641	27.6	20.8	28.3	23.6	3234	107.3	170	141	11.5	121	0.868	0.0428	38.3	2573	4119
1993	7970	0.603	28.1	21.2	28.7	24.0	3210	107.1	167	139	11.5	120	0.868	0.0428	38.7	2614	4154
1994	8054	0.576	28.0	21.1	28.7	23.9	3251	107.2	168	143	11.4	121	0.885	0.0434	39.0	2607	4189
1995	9011	0.595	28.3	21.2	29.3	24.2	3266	107.8	168	153	10.8	125	0.948	0.0463	39.6	2649	4275
1996	7622	0.580	28.3	21.2	29.3	24.2	3276	108.2	166	154	10.8	125	0.958	0.0465	39.7	2655	4305
1997	8044	0.556	28.4	21.3	29.4	24.3	3273	108.0	164	157	10.7	126	0.974	0.0471	39.9	2655	4310
1998	7719	0.534	28.5	21.3	29.6	24.4	3305	108.0	164	159	10.6	127	0.991	0.0476	40.5	2669	4375
1999	8120	0.533	28.2	21.1	29.2	24.1	3361	108.4	166	164	10.5	128	1.006	0.0482	40.6	2641	4411
2000	8826	0.532	28.2	21.1	29.1	24.1	3366	103.0	166	168	10.3	129	1.030	0.0493	40.7	2522	4205
2001	7961	0.510	28.5	21.4	29.4	24.4	3365	108.3	165	169	10.3	130	1.039	0.0495	41.3	2686	4480
2002	7858	0.488	28.8	21.7	29.5	24.6	3379	108.6	166	173	10.1	131	1.063	0.0507	41.8	2714	4544
2003	7275	0.466	29.0	21.8	29.9	24.8	3426	108.0	173	178	10.0	132	1.079	0.0515	42.8	2726	4631
2004	7980	0.480	28.7	21.5	29.8	24.6	3455	109.0	172	183	9.9	134	1.082	0.0522	42.8	2737	4681

Percent of Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING			FOUR		
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	6.5	0.0	19.2	0.0	5.5	5.5	0.0	94.3	0.3	0.0
1976	6.0	0.0	17.0	0.0	3.3	3.3	0.0	96.5	0.3	0.0
1977	6.8	0.0	16.6	0.0	4.3	4.3	0.0	95.2	0.5	0.0
1978	9.9	0.0	20.2	6.6	5.3	5.3	0.0	93.8	1.0	0.0
1979	12.8	0.0	22.6	8.5	5.1	5.1	0.0	92.7	2.2	0.0
1980	31.1	0.6	31.7	15.5	7.2	6.5	0.7	88.7	4.1	0.0
1981	36.5	0.4	29.8	33.9	9.2	6.3	2.9	84.9	5.9	0.0
1982	46.1	0.4	29.9	51.6	18.4	7.5	10.9	76.9	4.7	0.0
1983	48.1	0.5	25.9	58.7	29.8	10.1	19.7	68.1	2.1	0.0
1984	52.8	0.4	24.4	58.3	40.1	15.9	24.1	58.3	1.6	0.0
1985	62.3	0.1	22.7	58.7	55.3	22.4	33.0	43.8	0.9	0.0
1986	71.2	0.3	25.1	58.0	66.2	37.3	28.9	33.5	0.3	1.7
1987	77.5	0.3	25.5	58.9	72.6	42.0	30.6	27.1	0.2	5.5
1988	82.2	0.4	24.7	66.0	83.4	54.0	29.4	16.6	0.0	10.6
1989	83.1	0.6	21.4	69.1	90.4	62.3	28.1	9.6	0.0	12.8
1990	85.3	0.4	19.9	72.7	98.8	77.5	21.2	1.2	0.0	25.6
1991	83.8	0.9	20.8	73.2	99.8	77.9	22.0	0.0	0.1	28.2
1992	81.2	0.7	17.5	76.2	99.9	89.6	10.4	0.0	0.1	29.9
1993	85.3	0.6	17.8	76.8	100.0	91.4	8.6	0.0	0.0	33.7
1994	84.4	0.2	16.8	79.2	100.0	94.7	5.3	0.0	0.0	39.8
1995	82.2	0.6	16.3	81.9	99.9	98.7	1.2	0.0	0.1	52.7
1996	87.2	0.6	14.9	83.5	99.9	98.8	1.1	0.0	0.1	56.1
1997	87.3	0.6	13.4	85.9	99.9	99.1	0.8	0.0	0.1	57.5
1998	88.2	0.8	12.2	87.5	99.8	99.7	0.1	0.0	0.2	60.3
1999	88.3	0.9	10.8	88.6	99.8	99.7	0.1	0.0	0.2	59.2
2000	85.8	0.9	11.2	87.7	99.8	99.7	0.1	0.0	0.2	62.8
2001	85.1	1.6	11.4	87.5	99.7	99.7	0.0	0.0	0.3	60.5
2002	86.0	2.3	11.3	88.0	99.6	99.6	0.0	0.0	0.4	63.7
2003	81.9	2.4	10.7	88.3	99.6	99.6	0.0	0.0	0.4	66.8
2004	80.7	3.2	12.8	84.7	99.8	99.8	0.0	0.0	0.2	67.6

# Appendix E

Table E-2

Characteristics of 1975 to 2004 Wagons

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	----> ADJ HWY	55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	963	0.094	16.1	12.5	15.6	13.8	3956		255	129	14.3	110	0.585	0.0321	27.4		
1976	1037	0.084	17.3	13.6	16.4	14.7	4182		276	132	14.7	109	0.526	0.0311	30.8		
1977	1273	0.090	18.0	14.3	16.9	15.3	4005	138.1	266	127	14.6	109	0.523	0.0314	30.9	2178	4271
1978	1157	0.080	19.2	15.1	18.3	16.4	3723	135.7	243	123	14.1	110	0.548	0.0326	30.5	2250	4152
1979	1067	0.077	19.7	15.6	18.4	16.7	3637	135.6	234	117	14.5	108	0.535	0.0316	30.5	2292	4138
1980	669	0.059	23.6	18.5	22.5	20.1	3231	128.4	189	96	15.2	104	0.567	0.0296	32.7	2639	4222
1981	798	0.076	25.6	20.0	24.6	21.8	3040	126.2	165	94	14.6	105	0.644	0.0311	33.3	2801	4224
1982	812	0.083	25.3	19.6	24.6	21.6	3188	129.4	178	98	14.8	105	0.603	0.0304	34.4	2842	4473
1983	936	0.091	27.2	21.1	26.3	23.2	3047	123.9	161	94	14.8	104	0.636	0.0304	35.4	2914	4389
1984	1003	0.072	26.4	20.4	25.9	22.6	3175	131.5	166	100	14.6	106	0.645	0.0310	35.9	3024	4728
1985	983	0.068	27.5	21.2	26.9	23.4	3112	128.6	158	101	14.4	107	0.677	0.0318	36.4	3064	4704
1986	878	0.057	27.1	20.8	26.7	23.1	3215	133.3	162	106	14.1	108	0.690	0.0326	37.0	3107	4962
1987	808	0.054	27.2	20.9	26.9	23.2	3248	133.5	162	112	13.6	110	0.730	0.0341	37.6	3123	5045
1988	613	0.040	27.6	21.1	27.4	23.5	3241	133.6	163	114	13.3	111	0.745	0.0350	38.1	3164	5111
1989	461	0.032	26.9	20.4	27.0	22.9	3327	135.5	171	121	13.0	113	0.758	0.0361	38.1	3128	5183
1990	376	0.030	26.7	20.3	26.9	22.8	3367	135.0	165	127	12.6	115	0.815	0.0375	38.4	3096	5195
1991	366	0.029	28.0	21.2	28.3	23.9	3305	134.0	158	124	12.7	114	0.823	0.0371	39.5	3231	5313
1992	307	0.025	27.5	20.7	28.2	23.5	3391	136.2	171	137	12.1	118	0.867	0.0401	39.9	3224	5447
1993	486	0.037	29.6	22.4	30.1	25.3	3154	129.8	150	117	12.8	113	0.811	0.0367	40.0	3327	5201
1994	360	0.026	29.4	22.1	30.2	25.1	3217	130.5	154	128	12.4	116	0.848	0.0389	40.6	3331	5298
1995	385	0.025	29.6	22.3	30.2	25.3	3188	129.7	147	126	12.4	116	0.873	0.0389	40.4	3320	5239
1996	268	0.020	27.7	20.9	28.3	23.7	3453	131.8	155	144	11.8	120	0.945	0.0413	40.9	3143	5406
1997	299	0.021	29.0	21.9	29.4	24.8	3281	127.9	142	137	11.6	119	0.971	0.0418	40.6	3198	5199
1998	252	0.017	28.3	21.5	28.5	24.2	3356	128.1	143	149	11.1	123	1.041	0.0441	40.5	3120	5196
1999	259	0.017	27.7	20.9	28.3	23.7	3460	130.8	148	156	10.9	124	1.062	0.0447	40.9	3120	5368
2000	302	0.018	27.7	21.0	27.9	23.6	3468	130.8	147	158	10.9	125	1.076	0.0453	41.0	3117	5374
2001	447	0.029	26.9	20.6	26.8	23.0	3631	127.0	150	162	11.0	125	1.084	0.0445	41.8	2944	5321
2002	443	0.028	26.7	20.4	26.7	22.8	3610	125.4	148	163	10.9	125	1.109	0.0451	41.3	2884	5200
2003	429	0.027	27.8	21.3	27.6	23.7	3520	124.3	144	165	10.6	127	1.159	0.0467	42.0	2985	5225
2004	621	0.037	28.5	21.9	28.0	24.3	3567	127.1	145	183	10.0	132	1.271	0.0510	43.5	3127	5534

Percent of Wagons:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	6.6	0.0	25.3	0.0	2.7	2.7	0.0	97.3	0.1	0.0
1976	4.1	0.0	17.5	0.0	2.6	2.6	0.0	97.3	0.1	0.0
1977	7.0	0.0	18.0	0.0	3.4	3.4	0.0	96.2	0.3	0.0
1978	7.2	0.0	19.9	7.5	3.4	3.4	0.0	96.1	0.5	0.0
1979	3.8	3.5	19.6	4.1	1.4	1.4	0.0	97.4	1.1	0.0
1980	11.3	4.6	35.1	30.2	2.2	2.2	0.0	88.5	9.3	0.0
1981	42.4	4.2	36.8	27.5	4.5	4.4	0.0	89.0	6.5	0.0
1982	42.0	4.2	28.0	49.0	4.6	4.3	0.3	90.7	4.7	0.0
1983	41.1	22.3	30.7	42.1	17.4	4.4	13.0	81.1	1.5	0.0
1984	62.9	7.2	22.1	58.4	32.8	6.1	26.7	65.2	2.0	0.0
1985	54.4	21.5	23.6	58.6	34.8	12.1	22.7	64.3	1.0	0.0
1986	69.4	9.2	21.4	58.3	52.5	29.8	22.7	47.1	0.4	0.0
1987	71.5	10.5	17.3	66.4	77.4	48.2	29.2	22.3	0.3	7.3
1988	73.8	8.5	17.4	67.1	88.7	48.9	39.8	11.3	0.0	7.8
1989	71.2	7.7	12.9	73.3	87.3	64.1	23.2	12.7	0.0	13.3
1990	68.9	13.7	13.9	76.5	94.4	76.4	18.0	5.6	0.0	28.8
1991	71.8	12.4	14.7	80.4	100.0	80.8	19.2	0.0	0.0	28.9
1992	70.2	12.2	15.2	80.2	100.0	89.0	11.0	0.0	0.0	25.1
1993	81.3	10.3	18.6	78.7	100.0	93.5	6.5	0.0	0.0	18.3
1994	84.9	6.2	15.7	81.7	100.0	98.7	1.3	0.0	0.0	19.1
1995	77.5	15.1	16.9	81.7	100.0	100.0	0.0	0.0	0.0	36.8
1996	66.7	28.3	15.1	84.9	99.5	99.5	0.0	0.0	0.5	57.1
1997	65.9	32.8	16.4	83.6	100.0	100.0	0.0	0.0	0.0	53.8
1998	51.1	46.0	15.6	84.4	100.0	100.0	0.0	0.0	0.0	67.6
1999	52.9	43.3	14.5	84.8	100.0	100.0	0.0	0.0	0.0	65.3
2000	58.2	37.6	11.1	87.4	100.0	100.0	0.0	0.0	0.0	75.0
2001	66.2	32.2	11.6	88.1	100.0	100.0	0.0	0.0	0.0	84.3
2002	66.5	31.5	14.6	85.1	99.5	99.5	0.0	0.0	0.5	86.5
2003	80.6	17.4	11.5	88.5	99.4	99.4	0.0	0.0	0.6	88.0
2004	70.4	28.5	16.0	84.0	99.4	99.4	0.0	0.0	0.6	88.9

# Appendix E

Table E-3

Characteristics of 1975 to 2004 Cars and Wagons

MODEL YEAR	SALES (000)	<---- FRAC	FUEL ECONOMY LAB 55/45	ADJ CITY	ADJ HWY	ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	8237	0.806	15.8	12.3	15.2	13.5	4058		288	136	14.2	111	0.515	0.0331	27.6		
1976	9722	0.788	17.5	13.7	16.6	14.9	4059		287	134	14.4	110	0.502	0.0324	30.2		
1977	11300	0.800	18.3	14.4	17.4	15.6	3944	110.4	279	133	14.0	111	0.516	0.0335	31.0	1780	3423
1978	11175	0.773	19.9	15.5	19.1	16.9	3588	109.0	251	124	13.7	111	0.538	0.0342	30.6	1908	3345
1979	10794	0.778	20.3	15.9	19.2	17.2	3485	108.9	238	119	13.8	110	0.545	0.0338	30.2	1922	3301
1980	9443	0.835	23.5	18.3	22.6	20.0	3101	104.2	188	100	14.3	107	0.583	0.0322	31.2	2136	3273
1981	8733	0.827	25.1	19.6	24.2	21.4	3076	106.5	182	99	14.4	106	0.594	0.0320	33.1	2338	3547
1982	7819	0.803	26.0	20.1	25.5	22.2	3054	106.1	175	99	14.4	106	0.609	0.0320	34.2	2419	3645
1983	8002	0.777	25.9	19.9	25.5	22.1	3112	108.7	182	104	14.0	108	0.615	0.0330	34.7	2476	3776
1984	10675	0.761	26.3	20.2	26.0	22.4	3099	107.5	179	106	13.8	109	0.637	0.0339	35.1	2482	3776
1985	10791	0.746	27.0	20.7	26.8	23.0	3093	108.1	177	111	13.3	111	0.671	0.0355	35.8	2551	3881
1986	11015	0.717	27.9	21.3	27.7	23.8	3041	107.3	167	111	13.2	111	0.701	0.0360	36.4	2608	3914
1987	10731	0.722	28.1	21.5	28.0	24.0	3031	106.6	162	112	13.0	112	0.732	0.0365	36.5	2604	3900
1988	10736	0.702	28.6	21.8	28.5	24.4	3047	107.0	160	116	12.8	113	0.759	0.0375	37.3	2662	4007
1989	10018	0.693	28.1	21.4	28.3	24.0	3099	107.7	163	121	12.5	115	0.783	0.0387	37.4	2630	4034
1990	8810	0.698	27.8	21.1	28.1	23.7	3176	107.1	163	129	12.1	117	0.829	0.0401	37.8	2574	4055
1991	8524	0.678	28.0	21.2	28.3	23.9	3154	106.8	163	132	11.8	118	0.851	0.0413	37.8	2597	4055
1992	8108	0.666	27.6	20.8	28.3	23.6	3240	108.4	170	141	11.5	120	0.868	0.0428	38.4	2598	4169
1993	8457	0.640	28.2	21.3	28.8	24.1	3207	108.4	166	138	11.6	120	0.865	0.0425	38.8	2655	4214
1994	8414	0.602	28.1	21.1	28.8	24.0	3250	108.2	168	143	11.4	121	0.884	0.0432	39.1	2638	4237
1995	9396	0.620	28.3	21.2	29.3	24.2	3263	108.7	167	152	10.9	125	0.945	0.0460	39.6	2676	4315
1996	7890	0.600	28.3	21.2	29.3	24.2	3282	109.0	165	154	10.8	125	0.958	0.0464	39.8	2671	4342
1997	8343	0.577	28.4	21.3	29.4	24.3	3274	108.7	164	156	10.7	126	0.974	0.0469	39.9	2674	4341
1998	7971	0.551	28.5	21.3	29.6	24.4	3306	108.6	164	159	10.6	127	0.993	0.0475	40.5	2684	4401
1999	8379	0.550	28.2	21.1	29.2	24.1	3365	109.1	166	164	10.5	128	1.008	0.0481	40.6	2656	4440
2000	9128	0.551	28.2	21.1	29.1	24.1	3369	103.9	165	168	10.3	129	1.032	0.0492	40.7	2542	4244
2001	8408	0.539	28.4	21.4	29.3	24.3	3380	109.3	165	168	10.3	129	1.042	0.0492	41.4	2700	4525
2002	8302	0.515	28.6	21.6	29.3	24.5	3391	109.5	166	173	10.1	131	1.066	0.0504	41.8	2723	4579
2003	7705	0.493	28.9	21.8	29.7	24.7	3431	108.9	171	178	10.0	132	1.084	0.0512	42.8	2741	4664
2004	8601	0.517	28.7	21.6	29.6	24.6	3463	110.3	170	183	9.9	133	1.096	0.0522	42.9	2765	4743

Percent of Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	6.5	0.0	19.9	0.0	5.1	5.1	0.0	94.6	0.2	0.0
1976	5.8	0.0	17.1	0.0	3.2	3.2	0.0	96.6	0.3	0.0
1977	6.8	0.0	16.8	0.0	4.2	4.2	0.0	95.3	0.5	0.0
1978	9.6	0.0	20.2	6.7	5.1	5.1	0.0	94.0	0.9	0.0
1979	11.9	0.3	22.3	8.0	4.7	4.7	0.0	93.2	2.1	0.0
1980	29.7	0.9	31.9	16.5	6.9	6.2	0.7	88.7	4.4	0.0
1981	37.0	0.7	30.4	33.3	8.8	6.1	2.6	85.3	5.9	0.0
1982	45.6	0.8	29.7	51.4	17.0	7.2	9.8	78.4	4.7	0.0
1983	47.3	3.1	26.5	56.7	28.3	9.5	18.9	69.6	2.1	0.0
1984	53.7	1.0	24.1	58.3	39.4	15.0	24.4	58.9	1.7	0.0
1985	61.6	2.1	22.8	58.7	53.5	21.4	32.0	45.6	0.9	0.0
1986	71.1	1.1	24.8	58.0	65.1	36.7	28.4	34.5	0.3	1.6
1987	77.0	1.1	24.9	59.5	73.0	42.5	30.5	26.8	0.3	5.6
1988	81.7	0.8	24.3	66.1	83.7	53.7	30.0	16.3	0.0	10.4
1989	82.5	1.0	21.0	69.3	90.2	62.4	27.8	9.7	0.0	12.8
1990	84.6	1.0	19.6	72.9	98.6	77.5	21.1	1.4	0.0	25.7
1991	83.2	1.4	20.5	73.5	99.8	78.0	21.8	0.0	0.1	28.2
1992	80.8	1.1	17.4	76.4	99.9	89.5	10.4	0.0	0.1	29.7
1993	85.1	1.2	17.8	76.9	100.0	91.6	8.4	0.0	0.0	32.8
1994	84.4	0.4	16.7	79.3	100.0	94.9	5.1	0.0	0.0	38.9
1995	82.0	1.2	16.3	81.9	99.9	98.8	1.2	0.0	0.1	52.1
1996	86.5	1.5	14.9	83.6	99.9	98.8	1.1	0.0	0.1	56.2
1997	86.6	1.7	13.5	85.8	99.9	99.1	0.8	0.0	0.1	57.4
1998	87.0	2.3	12.3	87.4	99.8	99.7	0.1	0.0	0.2	60.5
1999	87.2	2.2	10.9	88.4	99.8	99.7	0.1	0.0	0.2	59.4
2000	84.9	2.1	11.2	87.7	99.8	99.7	0.1	0.0	0.2	63.2
2001	84.1	3.2	11.4	87.5	99.7	99.7	0.0	0.0	0.3	61.8
2002	84.9	3.8	11.5	87.8	99.6	99.6	0.0	0.0	0.4	65.0
2003	81.9	3.2	10.8	88.3	99.6	99.6	0.0	0.0	0.4	67.9
2004	80.0	5.0	13.0	84.7	99.8	99.8	0.0	0.0	0.2	69.2



# Appendix E

Table E-4

Characteristics of 1975 to 2004 Vans

MODEL YEAR	SALES (000) FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	457 0.045	13.1	10.6	11.9	11.1	4196	317	143	13.9	113	0.448	0.0339	23.8
1976	502 0.041	13.9	11.1	12.8	11.8	4200	324	146	13.7	114	0.447	0.0345	25.2
1977	514 0.036	14.7	11.9	13.3	12.5	4252	332	152	13.3	116	0.458	0.0357	26.9
1978	625 0.043	14.2	11.6	12.7	12.1	4249	329	149	13.4	115	0.453	0.0350	26.1
1979	480 0.035	13.5	11.1	12.1	11.5	4541	322	144	14.6	111	0.451	0.0316	26.5
1980	242 0.021	16.6	13.3	15.4	14.1	4353	288	130	15.2	108	0.459	0.0295	31.0
1981	245 0.023	17.5	14.0	16.0	14.8	4324	284	129	15.3	108	0.458	0.0294	32.3
1982	310 0.032	17.3	13.9	15.9	14.7	4342	287	132	15.2	109	0.463	0.0301	32.3
1983	383 0.037	17.7	14.1	16.5	15.1	4414	294	136	15.0	109	0.465	0.0305	33.7
1984	676 0.048	18.9	15.0	17.7	16.1	4075	249	126	14.9	108	0.538	0.0305	33.4
1985	855 0.059	19.5	15.5	18.1	16.5	3975	236	129	14.3	110	0.578	0.0321	33.4
1986	1044 0.068	20.6	16.2	19.5	17.5	3998	228	127	14.5	109	0.588	0.0316	35.3
1987	1114 0.075	20.9	16.3	19.9	17.8	3972	226	142	13.3	114	0.657	0.0355	35.6
1988	1133 0.074	21.2	16.4	20.6	18.0	4053	229	147	13.0	116	0.671	0.0362	36.8
1989	1278 0.088	21.1	16.4	20.5	18.0	4057	225	146	13.1	115	0.679	0.0359	36.9
1990	1262 0.100	21.2	16.4	20.8	18.1	4095	225	149	13.0	116	0.682	0.0363	37.4
1991	1033 0.082	21.4	16.5	20.9	18.3	4132	219	148	13.1	115	0.701	0.0358	38.0
1992	1221 0.100	21.5	16.6	21.1	18.3	4151	222	152	12.9	116	0.705	0.0365	38.2
1993	1441 0.109	21.9	16.7	21.7	18.7	4105	218	155	12.6	118	0.730	0.0377	38.4
1994	1395 0.100	21.5	16.5	21.3	18.4	4155	226	159	12.5	119	0.721	0.0382	38.4
1995	1662 0.110	21.8	16.6	21.8	18.6	4109	231	159	12.3	119	0.708	0.0386	38.4
1996	1409 0.107	22.2	16.9	22.3	19.0	4195	220	170	11.8	122	0.790	0.0407	40.0
1997	1266 0.087	22.1	16.8	22.2	18.8	4240	220	174	11.8	123	0.802	0.0410	40.1
1998	1489 0.103	22.7	17.2	23.1	19.4	4183	217	180	11.3	125	0.840	0.0431	40.7
1999	1466 0.096	22.3	16.8	22.7	19.0	4307	223	183	11.4	125	0.832	0.0424	41.1
2000	1691 0.102	22.8	17.2	23.1	19.5	4276	216	183	11.4	125	0.857	0.0427	41.8
2001	1237 0.079	23.2	17.5	23.5	19.8	4368	218	194	11.0	128	0.904	0.0445	43.4
2002	1243 0.077	23.0	17.5	23.4	19.7	4394	217	199	10.8	129	0.929	0.0455	43.5
2003	1291 0.083	22.8	17.3	23.3	19.5	4525	231	210	10.6	131	0.922	0.0463	44.3
2004	1159 0.070	23.4	17.6	24.1	20.0	4497	223	212	10.5	132	0.963	0.0472	45.1

Percent of Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	23.3	0.0	0.2	0.0	0.0	99.8	0.0	0.0
1976	0.0	0.0	20.5	0.0	0.3	0.0	0.0	99.7	0.0	0.0
1977	0.0	0.0	14.3	0.0	0.4	0.0	0.0	99.6	0.0	0.0
1978	0.0	0.0	13.0	0.0	0.4	0.0	0.0	99.6	0.0	0.0
1979	0.0	0.0	14.8	6.8	1.8	0.0	0.0	98.2	0.0	0.0
1980	0.0	0.0	26.0	39.0	6.5	0.0	0.0	93.5	0.0	0.0
1981	0.3	0.0	21.9	46.6	4.6	0.0	0.0	95.4	0.0	0.0
1982	0.0	0.0	15.7	45.8	3.0	0.0	0.0	95.2	1.8	0.0
1983	0.2	0.0	12.0	59.3	3.5	0.0	0.0	92.0	4.5	0.0
1984	22.3	0.0	15.5	45.6	9.8	0.0	0.0	89.0	1.2	0.0
1985	30.4	0.3	10.0	47.4	9.3	0.0	0.0	90.4	0.3	0.0
1986	24.4	1.3	8.5	60.1	38.1	21.8	16.3	61.5	0.4	0.0
1987	27.5	1.9	6.6	67.6	76.0	45.8	30.2	23.9	0.1	0.0
1988	36.3	0.8	3.7	78.7	99.7	56.9	42.8	0.2	0.1	0.0
1989	34.4	0.7	2.9	76.5	99.9	58.1	41.8	0.0	0.1	0.0
1990	46.8	6.6	1.5	93.5	99.9	58.1	41.9	0.0	0.1	0.0
1991	38.2	10.9	1.3	96.5	99.9	63.3	36.6	0.0	0.1	0.0
1992	45.4	5.5	1.6	96.4	99.9	71.9	28.1	0.0	0.1	0.0
1993	49.8	4.5	1.2	97.2	100.0	79.0	21.0	0.0	0.0	0.6
1994	53.1	6.5	0.5	97.4	100.0	80.9	19.1	0.0	0.0	1.4
1995	61.3	9.1	0.1	98.2	100.0	87.4	12.6	0.0	0.0	3.6
1996	73.8	2.3	0.0	98.4	100.0	100.0	0.0	0.0	0.0	4.7
1997	64.7	4.7	0.0	99.6	100.0	100.0	0.0	0.0	0.0	5.3
1998	78.3	3.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	10.4
1999	76.0	2.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	12.4
2000	80.6	2.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	21.6
2001	83.5	2.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	22.5
2002	84.3	3.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	28.4
2003	75.7	12.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	20.4
2004	84.9	4.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	43.9

# Appendix E

Table E-5

Characteristics of 1975 to 2004 SUVs

MODEL YEAR	SALES (000) FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	187 0.018	13.0	10.6	11.6	11.0	4202	328	146	13.3	115	0.441	0.0352	23.0
1976	243 0.020	13.8	11.1	12.5	11.7	4312	335	141	14.0	112	0.416	0.0327	25.2
1977	283 0.020	15.1	12.2	13.7	12.8	4232	332	143	13.6	113	0.431	0.0339	27.0
1978	380 0.026	14.4	11.6	13.2	12.3	4270	339	149	13.2	114	0.437	0.0348	26.0
1979	400 0.029	12.6	10.4	10.9	10.6	4509	331	143	14.4	111	0.438	0.0321	24.0
1980	185 0.016	15.5	12.5	14.1	13.2	4236	294	131	14.7	109	0.453	0.0304	28.0
1981	136 0.013	16.8	13.4	15.5	14.3	4208	290	131	14.4	109	0.460	0.0312	30.1
1982	162 0.017	17.6	14.0	16.4	15.0	4349	294	129	15.0	108	0.453	0.0300	33.3
1983	289 0.028	19.1	15.0	18.1	16.2	4137	253	124	15.0	108	0.520	0.0301	34.2
1984	625 0.045	19.3	15.1	18.3	16.4	3999	227	120	15.0	107	0.559	0.0300	33.3
1985	735 0.051	19.8	15.4	19.3	16.9	4018	216	122	15.0	107	0.590	0.0300	34.3
1986	774 0.050	20.2	15.8	19.3	17.2	3921	207	127	14.1	110	0.657	0.0324	34.0
1987	873 0.059	20.6	16.1	19.9	17.6	3840	209	136	13.3	114	0.686	0.0354	33.9
1988	968 0.063	20.4	15.9	19.7	17.4	3859	219	144	12.8	116	0.686	0.0372	33.6
1989	926 0.064	20.0	15.6	19.2	17.0	4017	242	155	12.4	119	0.665	0.0388	34.3
1990	708 0.056	19.8	15.4	19.2	16.9	4045	232	154	12.5	118	0.696	0.0383	34.1
1991	1095 0.087	20.3	15.7	19.8	17.3	4070	229	158	12.3	119	0.703	0.0389	35.3
1992	1003 0.082	19.9	15.4	19.3	16.9	4085	229	165	12.0	121	0.737	0.0408	34.6
1993	1311 0.099	19.9	15.3	19.5	17.0	4157	242	179	11.4	125	0.754	0.0434	35.2
1994	1585 0.113	19.7	15.2	19.2	16.8	4225	239	178	11.5	124	0.761	0.0424	35.5
1995	1816 0.120	19.6	15.1	19.1	16.7	4255	241	176	11.7	123	0.755	0.0417	35.5
1996	1889 0.144	20.0	15.3	19.8	17.1	4283	252	185	11.3	126	0.753	0.0434	36.6
1997	2450 0.169	20.1	15.5	19.7	17.1	4329	246	186	11.3	125	0.781	0.0430	37.1
1998	2581 0.179	20.1	15.4	19.8	17.1	4340	246	188	11.3	126	0.788	0.0433	37.3
1999	2837 0.186	20.1	15.5	19.8	17.2	4399	245	198	10.9	129	0.838	0.0450	37.8
2000	3143 0.190	20.1	15.5	19.6	17.1	4458	245	200	10.9	129	0.843	0.0448	38.1
2001	3329 0.213	20.5	15.9	20.0	17.5	4430	233	208	10.5	131	0.928	0.0471	38.8
2002	4179 0.259	20.6	15.8	20.3	17.6	4511	236	222	10.2	135	0.960	0.0491	39.7
2003	4254 0.272	20.8	15.9	20.7	17.8	4611	240	227	10.2	135	0.971	0.0493	40.9
2004	4334 0.261	21.0	16.1	20.9	17.9	4641	240	234	10.0	137	0.995	0.0505	41.6

Percent of SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	84.1	41.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	85.3	33.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	82.5	35.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	88.5	34.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	69.3	33.3	0.6	0.0	0.0	0.0	99.8	0.2	0.0
1980	0.0	88.8	43.5	26.2	0.0	0.0	0.0	97.7	2.3	0.0
1981	0.0	90.4	40.9	41.1	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	79.5	29.8	42.2	0.0	0.0	0.0	84.7	15.3	0.0
1983	0.0	80.7	32.1	51.2	0.0	0.0	0.0	93.3	6.7	0.0
1984	0.0	85.0	29.3	42.9	0.0	0.0	0.0	97.7	2.3	0.0
1985	0.0	80.4	27.9	60.1	5.4	0.0	0.0	93.1	1.5	0.0
1986	0.0	86.1	37.3	55.8	49.6	23.9	25.7	48.9	1.5	0.0
1987	0.0	83.9	36.8	54.7	74.8	33.0	41.8	24.8	0.4	0.0
1988	0.0	83.7	33.4	59.5	84.1	47.4	36.7	15.6	0.3	0.0
1989	0.0	82.6	26.1	66.4	93.5	46.1	47.4	6.3	0.3	0.0
1990	0.0	83.9	29.7	66.5	94.5	57.3	37.3	5.2	0.3	0.0
1991	0.0	76.6	21.9	76.7	99.3	59.6	39.8	0.5	0.2	0.0
1992	0.0	72.3	22.4	76.9	99.7	73.1	26.6	0.3	0.0	0.0
1993	0.0	59.6	16.2	83.2	99.8	85.7	14.1	0.2	0.0	0.0
1994	0.0	76.1	15.5	82.9	100.0	86.6	13.4	0.0	0.0	7.4
1995	0.0	79.2	15.3	84.7	100.0	85.7	14.3	0.0	0.0	15.6
1996	1.0	71.1	7.5	92.5	100.0	100.0	0.0	0.0	0.0	16.4
1997	1.2	71.6	11.7	87.4	100.0	100.0	0.0	0.0	0.0	24.3
1998	1.8	71.0	8.2	91.8	100.0	100.0	0.0	0.0	0.0	21.7
1999	2.6	65.6	6.3	93.7	100.0	100.0	0.0	0.0	0.0	25.7
2000	2.5	67.1	5.1	94.9	100.0	100.0	0.0	0.0	0.0	26.2
2001	8.8	62.9	4.4	95.6	100.0	100.0	0.0	0.0	0.0	40.5
2002	9.5	63.7	3.9	96.1	100.0	100.0	0.0	0.0	0.0	46.8
2003	12.3	61.5	2.1	95.7	100.0	100.0	0.0	0.0	0.0	53.6
2004	11.5	66.9	3.1	95.0	100.0	100.0	0.0	0.0	0.0	57.1

# Appendix E

Table E-6

Characteristics of 1975 to 2004 Pickups

MODEL YEAR	SALES (000) FRAC		<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP		0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	1343	0.131	14.0	11.1	13.1	11.9	4012	306	141	13.5	114	0.490	0.0349	24.5
1976	1866	0.151	14.6	11.7	13.4	12.4	4122	316	139	13.9	112	0.465	0.0337	26.3
1977	2026	0.143	16.0	12.9	14.5	13.6	4092	312	146	13.3	115	0.495	0.0355	28.4
1978	2267	0.157	15.7	12.8	14.1	13.3	4104	306	144	13.4	114	0.496	0.0349	28.1
1979	2207	0.159	15.5	12.7	13.9	13.2	4142	287	136	14.2	111	0.502	0.0326	28.0
1980	1437	0.127	19.4	15.5	17.9	16.5	3740	236	118	14.4	108	0.549	0.0314	31.2
1981	1440	0.136	21.0	16.7	19.5	17.9	3679	237	115	14.5	108	0.521	0.0311	33.4
1982	1441	0.148	21.7	17.2	20.3	18.5	3629	228	116	14.3	109	0.545	0.0320	34.1
1983	1628	0.158	22.2	17.5	20.9	18.9	3544	212	112	14.4	108	0.565	0.0315	34.0
1984	2043	0.146	21.5	16.9	20.2	18.3	3619	215	114	14.5	108	0.563	0.0313	33.6
1985	2078	0.144	21.4	16.9	20.1	18.2	3642	221	123	13.7	110	0.588	0.0335	33.7
1986	2532	0.165	22.2	17.6	20.9	18.9	3574	206	120	13.7	110	0.623	0.0336	34.2
1987	2146	0.144	22.5	17.7	21.4	19.2	3526	202	123	13.4	112	0.638	0.0347	34.1
1988	2459	0.161	21.5	16.8	20.6	18.3	3737	229	138	12.9	115	0.627	0.0364	34.5
1989	2231	0.154	21.2	16.5	20.3	18.0	3803	236	143	12.7	116	0.632	0.0372	34.5
1990	1834	0.145	20.7	16.1	20.1	17.7	3928	246	151	12.4	118	0.647	0.0383	35.0
1991	1920	0.153	21.7	16.8	21.2	18.5	3779	232	146	12.4	117	0.658	0.0384	35.3
1992	1840	0.151	20.9	16.1	20.6	17.9	3976	244	151	12.5	117	0.643	0.0378	35.7
1993	2002	0.152	21.1	16.3	20.8	18.0	3996	244	156	12.2	119	0.666	0.0389	36.2
1994	2591	0.185	21.0	16.2	20.6	17.9	4057	247	163	12.0	120	0.686	0.0399	36.7
1995	2271	0.150	20.4	15.7	20.1	17.4	4182	256	167	12.0	121	0.687	0.0398	36.8
1996	1955	0.149	20.8	16.0	20.5	17.7	4190	251	178	11.5	124	0.737	0.0421	37.5
1997	2408	0.166	20.4	15.7	20.3	17.5	4415	264	195	11.1	127	0.756	0.0439	38.7
1998	2415	0.167	20.7	15.9	20.6	17.7	4282	252	190	11.2	127	0.773	0.0439	38.0
1999	2551	0.167	19.9	15.3	19.6	17.0	4486	267	205	10.9	129	0.776	0.0452	38.1
2000	2613	0.158	20.5	15.8	20.0	17.5	4340	255	203	10.8	130	0.803	0.0461	37.9
2001	2622	0.168	19.6	15.1	19.3	16.8	4550	268	215	10.6	132	0.814	0.0470	38.2
2002	2381	0.148	19.5	15.0	19.0	16.6	4690	271	226	10.4	134	0.838	0.0480	38.9
2003	2372	0.152	20.0	15.5	19.5	17.1	4606	262	225	10.5	134	0.857	0.0482	39.4
2004	2530	0.152	19.9	15.3	19.5	17.0	4932	281	248	10.1	138	0.884	0.0499	41.7

Percent of Pickups:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	13.5	41.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	20.9	38.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	21.4	35.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	27.0	37.4	0.0	0.0	0.0	0.0	98.8	1.2	0.0
1979	0.0	12.6	39.9	1.3	0.0	0.0	0.0	97.5	2.5	0.0
1980	1.8	21.1	58.8	21.9	1.0	0.0	0.0	94.8	4.2	0.0
1981	2.3	16.8	57.7	27.5	0.6	0.0	0.0	92.3	7.1	0.0
1982	2.2	17.7	53.9	29.5	0.2	0.0	0.0	89.5	10.3	0.0
1983	1.9	22.1	56.3	28.0	0.1	0.0	0.0	95.5	4.4	0.0
1984	0.6	24.7	54.9	29.3	1.0	0.0	0.0	96.3	2.7	0.0
1985	0.0	25.4	51.6	33.7	15.9	0.0	0.3	82.8	1.2	0.0
1986	0.0	25.2	58.4	30.4	38.8	21.2	17.6	60.6	0.6	0.0
1987	0.0	25.5	58.5	28.9	58.9	26.9	32.0	40.8	0.3	0.0
1988	0.0	28.4	51.0	38.8	83.7	35.4	48.3	16.1	0.2	0.0
1989	0.0	28.9	52.4	41.5	89.9	38.8	51.1	10.0	0.2	0.0
1990	0.0	27.9	45.8	49.8	93.8	52.4	41.4	6.0	0.2	0.0
1991	0.0	24.8	52.2	46.4	96.7	47.9	48.7	3.2	0.2	0.0
1992	0.0	26.3	47.1	52.1	96.6	58.0	38.6	3.2	0.1	0.0
1993	0.0	27.6	43.9	55.3	97.9	61.2	36.7	2.1	0.0	0.0
1994	0.0	30.2	40.4	58.6	99.2	68.6	30.6	0.8	0.0	0.1
1995	0.0	33.0	39.6	59.5	100.0	69.5	30.5	0.0	0.0	5.5
1996	0.0	29.3	34.7	64.0	99.8	99.8	0.0	0.0	0.2	8.7
1997	0.0	34.6	25.3	74.7	99.9	99.9	0.0	0.0	0.1	1.3
1998	0.0	34.8	27.3	71.1	100.0	100.0	0.0	0.0	0.0	11.2
1999	0.0	45.2	17.5	81.5	100.0	100.0	0.0	0.0	0.0	7.7
2000	0.0	38.4	16.7	82.5	100.0	100.0	0.0	0.0	0.0	12.7
2001	0.0	39.1	11.6	87.6	100.0	100.0	0.0	0.0	0.0	12.2
2002	0.0	42.3	9.5	89.6	100.0	100.0	0.0	0.0	0.0	17.8
2003	0.0	39.8	10.3	88.8	100.0	100.0	0.0	0.0	0.0	14.2
2004	0.0	40.6	7.9	91.4	100.0	100.0	0.0	0.0	0.0	22.5

# Appendix E

Table E-7

Characteristics of 1975 to 2004 Trucks

MODEL YEAR	SALES (000)	<---- FRAC	FUEL LAB 55/45	ECONOMY ADJ CITY	<----> ADJ HWY	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	
1975	1987	0.194	13.7	10.9	12.7	11.6	4072	311	142	13.6	114	0.476	0.0349	24.2
1976	2612	0.212	14.4	11.5	13.2	12.2	4155	319	141	13.8	113	0.458	0.0340	26.0
1977	2823	0.200	15.6	12.6	14.1	13.3	4135	318	147	13.3	115	0.482	0.0356	28.0
1978	3273	0.227	15.2	12.4	13.7	12.9	4151	314	146	13.4	114	0.481	0.0351	27.5
1979	3088	0.222	14.7	12.1	13.1	12.5	4252	298	138	14.3	111	0.486	0.0325	27.3
1980	1863	0.165	18.6	14.8	17.1	15.8	3869	248	121	14.5	108	0.528	0.0313	30.9
1981	1821	0.173	20.1	16.0	18.6	17.1	3806	247	119	14.6	108	0.508	0.0311	33.0
1982	1914	0.197	20.5	16.3	19.0	17.4	3806	243	120	14.5	109	0.524	0.0317	33.7
1983	2300	0.223	20.9	16.5	19.6	17.8	3763	231	118	14.5	108	0.543	0.0313	34.0
1984	3345	0.239	20.5	16.1	19.3	17.4	3782	224	118	14.7	108	0.557	0.0310	33.5
1985	3669	0.254	20.6	16.2	19.4	17.5	3795	224	124	14.1	110	0.586	0.0326	33.7
1986	4350	0.283	21.4	16.9	20.2	18.3	3738	211	123	14.0	110	0.621	0.0330	34.4
1987	4134	0.278	21.6	16.9	20.7	18.4	3713	210	131	13.3	113	0.654	0.0351	34.5
1988	4559	0.298	21.2	16.5	20.4	18.1	3841	227	141	12.9	115	0.650	0.0366	34.9
1989	4435	0.307	20.9	16.3	20.1	17.8	3921	234	146	12.8	116	0.653	0.0372	35.2
1990	3805	0.302	20.7	16.1	20.2	17.7	4005	237	151	12.6	117	0.668	0.0377	35.6
1991	4049	0.322	21.3	16.4	20.7	18.1	3948	228	150	12.6	117	0.681	0.0379	36.0
1992	4064	0.334	20.8	16.1	20.4	17.8	4056	234	155	12.5	118	0.685	0.0382	36.2
1993	4754	0.360	21.0	16.1	20.7	17.9	4073	235	162	12.1	120	0.710	0.0398	36.6
1994	5572	0.398	20.8	16.0	20.4	17.7	4130	240	166	12.0	121	0.716	0.0402	36.7
1995	5749	0.380	20.5	15.8	20.2	17.5	4184	244	168	12.0	121	0.715	0.0401	36.9
1996	5254	0.400	20.8	16.0	20.7	17.8	4225	243	179	11.5	124	0.757	0.0423	37.8
1997	6124	0.423	20.6	15.8	20.4	17.6	4344	248	187	11.4	126	0.775	0.0429	38.3
1998	6485	0.449	20.9	16.0	20.8	17.8	4283	242	187	11.2	126	0.795	0.0435	38.3
1999	6854	0.450	20.5	15.7	20.3	17.5	4412	249	197	11.0	128	0.814	0.0445	38.6
2000	7447	0.449	20.8	16.0	20.5	17.7	4375	242	197	11.0	128	0.832	0.0448	38.9
2001	7189	0.461	20.6	15.9	20.2	17.6	4463	243	209	10.6	131	0.882	0.0466	39.3
2002	7804	0.485	20.6	15.8	20.3	17.6	4547	244	220	10.4	134	0.918	0.0482	40.0
2003	7917	0.507	20.9	16.0	20.7	17.8	4595	245	223	10.3	134	0.929	0.0485	41.0
2004	8023	0.483	20.9	16.0	20.8	17.9	4712	251	235	10.1	137	0.955	0.0498	42.1

Percent of Trucks:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	17.1	37.0	0.0	0.1	0.0	0.0	99.9	0.0	0.0
1976	0.0	22.9	34.8	0.0	0.1	0.0	0.0	99.9	0.0	0.0
1977	0.0	23.6	32.0	0.0	0.1	0.0	0.0	99.9	0.0	0.0
1978	0.0	29.0	32.4	0.0	0.1	0.0	0.0	99.1	0.8	0.0
1979	0.0	18.0	35.2	2.1	0.3	0.0	0.0	97.9	1.8	0.0
1980	1.4	25.0	53.0	24.6	1.7	0.0	0.0	94.9	3.5	0.0
1981	1.9	20.1	51.6	31.1	1.1	0.0	0.0	93.3	5.6	0.0
1982	1.7	20.0	45.7	33.2	0.7	0.0	0.0	90.0	9.3	0.0
1983	1.4	25.8	45.9	36.1	0.6	0.0	0.0	94.7	4.7	0.0
1984	4.9	31.0	42.1	35.1	2.6	0.0	0.0	95.1	2.3	0.0
1985	7.1	30.6	37.1	42.2	12.3	0.0	0.2	86.7	1.1	0.0
1986	5.9	30.3	42.7	42.0	40.5	21.8	18.7	58.7	0.7	0.0
1987	7.4	31.5	39.9	44.8	66.9	33.3	33.6	32.9	0.3	0.0
1988	9.0	33.3	35.5	53.1	87.7	43.3	44.4	12.1	0.2	0.0
1989	9.9	32.0	32.7	56.8	93.5	45.9	47.6	6.3	0.2	0.0
1990	15.5	31.3	28.1	67.4	96.0	55.2	40.8	3.9	0.2	0.0
1991	9.7	35.3	31.0	67.4	98.2	55.0	43.2	1.6	0.1	0.0
1992	13.6	31.4	27.3	71.5	98.4	65.9	32.5	1.5	0.1	0.0
1993	15.1	29.5	23.3	75.7	99.0	73.4	25.7	1.0	0.0	0.2
1994	13.3	37.4	23.3	75.2	99.6	76.8	22.8	0.4	0.0	2.5
1995	17.7	40.7	20.5	78.6	100.0	79.8	20.2	0.0	0.0	8.1
1996	20.1	37.1	15.6	83.5	99.9	99.9	0.0	0.0	0.1	10.4
1997	13.9	43.2	14.6	85.0	100.0	100.0	0.0	0.0	0.0	11.3
1998	18.7	42.0	13.4	86.0	100.0	100.0	0.0	0.0	0.0	15.2
1999	17.3	44.6	9.1	90.5	100.0	100.0	0.0	0.0	0.0	16.2
2000	19.4	42.4	8.0	91.7	100.0	100.0	0.0	0.0	0.0	20.4
2001	18.5	43.8	6.3	93.4	100.0	100.0	0.0	0.0	0.0	27.1
2002	18.5	47.5	5.0	94.7	100.0	100.0	0.0	0.0	0.0	35.0
2003	18.9	47.1	4.2	94.3	100.0	100.0	0.0	0.0	0.0	36.4
2004	18.5	49.6	4.1	94.6	100.0	100.0	0.0	0.0	0.0	44.3

# Appendix E

Table E-8 Characteristics of 1975 to 2004 Light-Duty Vehicles

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB ECONOMY 55/45 ---->	ADJ CITY	ADJ HWY	ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	10224	1.000	15.3	12.0	14.6	13.1	4060	293	137	14.1	112	0.507	0.0335	26.9
1976	12334	1.000	16.7	13.2	15.7	14.2	4079	294	135	14.3	111	0.493	0.0328	29.3
1977	14123	1.000	17.7	14.0	16.6	15.1	3982	287	136	13.8	112	0.510	0.0339	30.4
1978	14448	1.000	18.6	14.7	17.5	15.8	3715	266	129	13.6	112	0.525	0.0344	29.9
1979	13882	1.000	18.7	14.9	17.4	15.9	3655	252	124	13.9	110	0.532	0.0335	29.5
1980	11306	1.000	22.5	17.6	21.5	19.2	3228	198	104	14.3	107	0.574	0.0320	31.2
1981	10554	1.000	24.1	18.8	23.0	20.5	3202	193	102	14.4	107	0.580	0.0318	33.1
1982	9732	1.000	24.7	19.2	23.9	21.1	3202	188	103	14.4	107	0.593	0.0320	34.1
1983	10302	1.000	24.6	19.0	23.9	21.0	3257	193	107	14.1	108	0.599	0.0327	34.5
1984	14020	1.000	24.6	19.1	24.0	21.0	3262	190	109	14.0	109	0.618	0.0332	34.7
1985	14460	1.000	25.0	19.3	24.4	21.3	3271	189	114	13.5	110	0.650	0.0347	35.3
1986	15365	1.000	25.7	19.9	25.1	21.9	3238	180	114	13.4	111	0.678	0.0351	35.8
1987	14865	1.000	25.9	20.0	25.5	22.1	3221	175	118	13.1	112	0.710	0.0361	35.9
1988	15295	1.000	25.9	19.9	25.5	22.1	3283	180	123	12.8	114	0.726	0.0372	36.6
1989	14453	1.000	25.4	19.5	25.2	21.7	3351	185	129	12.5	115	0.743	0.0382	36.7
1990	12615	1.000	25.2	19.3	25.1	21.5	3426	185	135	12.2	117	0.781	0.0394	37.1
1991	12573	1.000	25.4	19.4	25.3	21.7	3410	184	138	12.1	118	0.796	0.0402	37.2
1992	12172	1.000	24.9	18.9	25.0	21.3	3512	191	145	11.8	120	0.807	0.0413	37.6
1993	13211	1.000	25.1	19.1	25.2	21.4	3519	191	147	11.8	120	0.809	0.0416	38.0
1994	13986	1.000	24.6	18.7	24.7	21.0	3600	196	152	11.7	121	0.817	0.0420	38.2
1995	15145	1.000	24.7	18.8	25.0	21.1	3613	196	158	11.3	123	0.857	0.0438	38.6
1996	13144	1.000	24.8	18.7	25.1	21.2	3659	197	164	11.1	125	0.878	0.0447	39.0
1997	14467	1.000	24.5	18.6	24.8	20.9	3727	199	169	11.0	126	0.890	0.0452	39.2
1998	14457	1.000	24.5	18.5	24.9	20.9	3744	199	171	10.9	126	0.904	0.0457	39.5
1999	15233	1.000	24.1	18.3	24.4	20.6	3836	203	179	10.7	128	0.920	0.0465	39.7
2000	16574	1.000	24.3	18.4	24.5	20.7	3821	200	181	10.6	129	0.942	0.0472	39.9
2001	15598	1.000	24.2	18.4	24.3	20.7	3879	201	187	10.5	130	0.968	0.0480	40.4
2002	16106	1.000	24.1	18.3	24.1	20.6	3951	203	196	10.2	132	0.994	0.0493	40.9
2003	15623	1.000	24.2	18.4	24.3	20.7	4021	209	201	10.2	133	1.005	0.0498	41.9
2004	16624	1.000	24.4	18.5	24.6	20.8	4066	209	208	10.0	135	1.028	0.0511	42.5

Percent of Light-Duty Vehicles:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	5.3	3.3	23.2	0.0	4.1	4.1	0.0	95.7	0.2	0.0
1976	4.6	4.8	20.9	0.0	2.5	2.5	0.0	97.3	0.2	0.0
1977	5.5	4.7	19.8	0.0	3.4	3.4	0.0	96.2	0.4	0.0
1978	7.4	6.6	23.0	5.2	3.9	3.9	0.0	95.2	0.9	0.0
1979	9.2	4.3	25.1	6.7	3.7	3.7	0.0	94.2	2.0	0.0
1980	25.0	4.9	35.4	17.8	6.0	5.2	0.6	89.7	4.3	0.0
1981	31.0	4.0	34.1	33.0	7.5	5.1	2.2	86.7	5.9	0.0
1982	37.0	4.6	32.8	47.8	13.8	5.8	7.9	80.6	5.6	0.0
1983	37.0	8.1	30.8	52.1	22.1	7.3	14.7	75.2	2.7	0.0
1984	42.1	8.2	28.4	52.8	30.6	11.4	18.6	67.6	1.8	0.0
1985	47.8	9.3	26.5	54.5	43.0	16.0	23.9	56.1	0.9	0.0
1986	52.6	9.3	29.8	53.5	58.2	32.5	25.7	41.4	0.4	1.1
1987	57.7	9.6	29.1	55.4	71.3	39.9	31.4	28.4	0.3	4.0
1988	60.0	10.5	27.6	62.2	84.9	50.6	34.3	15.0	0.1	7.3
1989	60.2	10.5	24.6	65.5	91.2	57.3	33.9	8.7	0.1	8.9
1990	63.8	10.1	22.2	71.2	97.8	70.8	27.0	2.1	0.1	17.9
1991	59.6	12.3	23.9	71.6	99.3	70.6	28.7	0.6	0.1	19.1
1992	58.4	11.2	20.7	74.8	99.4	81.6	17.8	0.5	0.1	19.8
1993	59.9	11.4	19.8	76.5	99.7	85.0	14.6	0.3	0.0	21.1
1994	56.1	15.1	19.4	77.7	99.9	87.7	12.2	0.1	0.0	24.4
1995	57.6	16.2	17.9	80.7	100.0	91.6	8.4	0.0	0.0	35.4
1996	60.0	15.7	15.2	83.5	99.9	99.3	0.7	0.0	0.1	37.9
1997	55.8	19.3	13.9	85.5	99.9	99.5	0.5	0.0	0.1	37.9
1998	56.4	20.1	12.8	86.8	99.9	99.8	0.1	0.0	0.1	40.2
1999	55.8	21.3	10.1	89.4	99.9	99.9	0.1	0.0	0.1	39.9
2000	55.5	20.2	9.7	89.5	99.9	99.8	0.0	0.0	0.1	44.0
2001	53.9	22.0	9.0	90.2	99.9	99.9	0.0	0.0	0.1	45.8
2002	52.7	25.0	8.3	91.2	99.8	99.8	0.0	0.0	0.2	50.4
2003	50.0	25.4	7.4	91.4	99.8	99.8	0.0	0.0	0.2	52.0
2004	50.3	26.5	8.7	89.5	99.9	99.9	0.0	0.0	0.1	57.1

# Appendix F

Table F-1 Characteristics of 1975 to 2004 SMALL CAR

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	4088	0.400	18.3	14.4	17.5	15.6	3440		224	113	14.5	108	0.554	0.0323	27.2		
1976	5041	0.409	19.9	15.7	18.8	17.0	3474		226	110	14.9	107	0.537	0.0312	29.6		
1977	5481	0.388	20.7	16.3	19.5	17.6	3486	95.4	224	114	14.3	108	0.567	0.0323	31.0	1769	2969
1978	4630	0.320	23.2	18.2	22.0	19.7	3029	90.9	177	100	14.2	107	0.625	0.0325	30.3	1901	2765
1979	4405	0.317	23.3	18.3	22.1	19.8	2936	89.2	166	98	14.2	107	0.641	0.0326	29.5	1862	2639
1980	4825	0.427	26.1	20.4	24.8	22.2	2717	90.0	137	86	14.5	104	0.658	0.0314	30.5	2077	2753
1981	4077	0.386	28.5	22.4	26.9	24.2	2648	91.6	129	85	14.4	105	0.680	0.0318	32.5	2311	2988
1982	4039	0.415	29.1	22.6	28.1	24.8	2684	92.2	131	87	14.4	105	0.682	0.0318	33.7	2374	3121
1983	3718	0.361	29.4	22.8	28.6	25.1	2734	95.1	137	91	14.1	106	0.693	0.0328	34.8	2494	3324
1984	5666	0.404	29.4	22.7	28.7	25.1	2776	95.2	140	95	13.8	108	0.706	0.0339	35.3	2479	3363
1985	5519	0.382	29.8	23.1	29.0	25.4	2771	96.0	138	100	13.3	110	0.746	0.0356	35.6	2531	3426
1986	6203	0.404	30.0	23.3	29.2	25.6	2791	96.7	137	101	13.3	110	0.754	0.0354	36.1	2564	3497
1987	6453	0.434	30.1	23.2	29.3	25.6	2803	96.9	134	102	13.3	110	0.776	0.0356	36.2	2555	3513
1988	6706	0.438	30.5	23.6	29.6	26.0	2818	98.5	133	105	13.1	111	0.806	0.0366	36.9	2630	3637
1989	5677	0.393	30.2	23.4	29.5	25.8	2841	98.3	131	108	12.8	112	0.844	0.0374	36.9	2601	3628
1990	4999	0.396	29.8	23.1	29.1	25.4	2897	97.6	131	116	12.2	115	0.906	0.0395	37.1	2538	3622
1991	5032	0.400	30.0	23.1	29.5	25.6	2885	97.6	131	117	12.1	115	0.919	0.0400	37.3	2569	3643
1992	4440	0.365	30.0	23.0	29.8	25.6	2921	97.9	134	123	11.8	117	0.943	0.0415	37.7	2575	3692
1993	4537	0.343	30.5	23.4	30.3	26.0	2903	98.3	133	122	11.8	117	0.933	0.0415	38.1	2624	3745
1994	4720	0.337	30.4	23.2	30.5	26.0	2965	98.7	137	126	11.7	118	0.943	0.0418	38.8	2630	3831
1995	5190	0.343	30.7	23.3	31.0	26.2	2988	99.6	137	134	11.2	121	1.002	0.0443	39.5	2679	3933
1996	4197	0.319	30.8	23.3	31.2	26.3	2977	99.9	136	134	11.1	121	1.008	0.0445	39.4	2686	3938
1997	4448	0.307	30.9	23.5	31.2	26.4	2976	99.2	133	133	11.2	121	1.016	0.0442	39.5	2666	3916
1998	3839	0.266	30.9	23.4	31.4	26.4	3013	98.8	137	138	11.0	122	1.028	0.0452	40.1	2671	3963
1999	3919	0.257	30.3	22.9	30.7	25.9	3085	98.9	141	143	10.9	123	1.033	0.0458	40.1	2613	3973
2000	4266	0.257	30.3	23.0	30.6	25.9	3079	99.4	139	144	10.8	124	1.052	0.0461	40.1	2631	3995
2001	4065	0.261	30.7	23.3	31.0	26.3	3101	99.2	140	149	10.6	126	1.080	0.0475	41.2	2686	4094
2002	3799	0.236	30.7	23.3	31.0	26.2	3125	98.9	141	153	10.5	127	1.098	0.0481	41.4	2680	4107
2003	3556	0.228	30.8	23.4	31.0	26.3	3168	99.5	142	159	10.4	129	1.132	0.0495	42.3	2715	4220
2004	3806	0.229	30.3	23.0	30.7	25.9	3202	99.0	148	164	10.2	130	1.129	0.0505	41.9	2652	4166

Percent of SMALL CAR:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	10.0	0.0	33.9	0.0	9.4	9.4	0.0	90.1	0.5	0.0
1976	8.8	0.0	29.2	0.0	5.0	5.0	0.0	94.5	0.5	0.0
1977	11.0	0.0	30.3	0.0	7.5	7.5	0.0	91.6	0.9	0.0
1978	19.9	0.0	42.6	5.2	10.3	10.3	0.0	88.2	1.5	0.0
1979	24.4	0.0	48.5	0.0	9.4	9.4	0.0	88.3	2.2	0.0
1980	37.8	1.1	52.8	4.1	11.1	11.1	0.0	85.1	3.7	0.0
1981	48.1	0.7	54.0	7.8	12.2	12.2	0.0	82.7	5.1	0.0
1982	56.2	0.7	50.8	26.7	19.6	13.0	6.6	76.4	4.0	0.0
1983	61.6	1.0	48.6	33.7	35.0	18.9	16.1	62.7	2.4	0.0
1984	63.2	0.6	41.1	37.6	45.6	25.4	20.2	52.3	2.2	0.0
1985	70.9	0.2	39.8	37.8	55.6	28.0	27.6	43.0	1.4	0.0
1986	74.5	0.5	40.0	41.7	62.6	36.7	25.9	37.0	0.4	2.7
1987	80.7	0.4	38.7	44.7	66.3	37.2	29.1	33.5	0.2	8.2
1988	85.2	0.5	36.0	51.6	78.6	45.5	33.1	21.4	0.0	15.7
1989	86.3	1.0	33.8	51.8	84.8	52.1	32.6	15.1	0.1	21.0
1990	89.0	0.6	31.7	56.9	98.2	69.9	28.3	1.8	0.1	40.6
1991	87.1	1.4	32.1	59.0	99.8	72.2	27.5	0.1	0.2	43.3
1992	88.6	1.2	29.4	60.3	99.9	87.2	12.7	0.0	0.1	42.5
1993	90.2	1.0	30.0	61.2	100.0	89.7	10.3	0.0	0.0	43.0
1994	88.4	0.3	27.7	65.7	100.0	92.7	7.3	0.0	0.0	49.6
1995	86.1	1.0	26.8	70.4	99.9	98.3	1.6	0.0	0.1	65.2
1996	89.6	1.0	24.5	73.1	100.0	97.9	2.1	0.0	0.0	65.7
1997	89.6	1.0	22.7	76.0	100.0	98.5	1.5	0.0	0.0	67.5
1998	86.1	1.2	22.1	77.2	99.7	99.4	0.3	0.0	0.3	67.6
1999	87.0	1.3	19.7	79.3	99.8	99.6	0.2	0.0	0.2	62.2
2000	83.4	1.1	20.8	77.5	99.5	99.4	0.1	0.0	0.5	65.7
2001	82.3	2.4	20.4	77.8	99.4	99.4	0.0	0.0	0.6	66.2
2002	79.7	4.1	21.5	77.3	99.2	99.2	0.0	0.0	0.8	65.1
2003	78.2	3.9	19.9	78.2	99.1	99.1	0.0	0.0	0.9	75.5
2004	75.4	5.6	22.7	73.7	99.5	99.5	0.0	0.0	0.5	75.5

# Appendix F

Table F-2

Characteristics of 1975 to 2004 MID-SIZE CAR

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	----> ADJ HWY	55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1631	0.160	13.6	10.5	13.1	11.6	4630		353	158	13.9	115	0.447	0.0340	27.2		
1976	1964	0.159	15.7	12.2	15.1	13.4	4558		343	156	13.8	114	0.454	0.0340	30.7		
1977	2226	0.158	16.4	12.9	15.7	14.0	4473	112.9	332	151	13.9	114	0.454	0.0336	31.6	1601	3565
1978	3339	0.231	18.6	14.4	17.9	15.8	3820	113.0	292	135	13.4	113	0.464	0.0353	30.3	1823	3422
1979	3211	0.231	19.1	15.0	18.1	16.3	3710	113.1	272	128	13.6	112	0.474	0.0344	30.3	1870	3425
1980	2987	0.264	21.6	16.8	21.0	18.4	3362	113.2	228	113	13.8	109	0.512	0.0336	31.1	2113	3523
1981	2902	0.275	22.9	17.8	22.3	19.6	3346	113.9	220	107	14.2	108	0.509	0.0322	32.9	2255	3746
1982	2136	0.219	24.0	18.4	23.8	20.5	3321	113.9	211	107	14.2	108	0.529	0.0323	34.3	2377	3906
1983	2269	0.220	23.9	18.4	23.6	20.4	3316	113.8	212	111	13.8	109	0.544	0.0335	34.0	2363	3876
1984	2770	0.198	24.1	18.5	23.9	20.6	3318	113.7	210	113	13.6	110	0.563	0.0341	34.3	2373	3896
1985	2777	0.192	24.9	19.0	24.9	21.3	3318	113.6	205	117	13.3	112	0.606	0.0354	35.4	2453	4025
1986	2666	0.174	25.9	19.7	26.0	22.1	3241	113.8	194	118	13.0	113	0.640	0.0364	35.9	2544	4088
1987	2252	0.152	26.0	19.8	26.2	22.2	3247	113.7	188	123	12.7	114	0.684	0.0378	36.2	2557	4115
1988	2113	0.138	26.7	20.1	27.4	22.8	3293	113.4	183	129	12.3	116	0.718	0.0389	37.7	2614	4271
1989	2591	0.179	26.6	20.0	27.6	22.8	3314	113.6	181	131	12.2	117	0.735	0.0396	37.8	2608	4300
1990	2342	0.186	26.2	19.5	27.4	22.4	3450	113.7	187	140	12.0	119	0.758	0.0406	38.8	2568	4410
1991	2114	0.168	26.0	19.4	27.1	22.3	3412	113.5	191	146	11.5	121	0.773	0.0428	38.1	2544	4321
1992	2120	0.174	25.8	19.2	27.0	22.1	3515	113.9	191	151	11.5	122	0.801	0.0426	38.8	2524	4425
1993	2330	0.176	26.1	19.4	27.3	22.4	3515	113.9	192	153	11.4	123	0.812	0.0433	39.4	2561	4488
1994	2057	0.147	25.9	19.3	27.0	22.2	3529	113.5	189	155	11.4	123	0.827	0.0436	39.1	2527	4444
1995	2515	0.166	26.1	19.3	27.7	22.3	3546	114.3	189	166	10.7	127	0.889	0.0464	39.7	2566	4535
1996	2359	0.179	26.5	19.7	27.8	22.6	3527	114.1	181	162	10.9	126	0.906	0.0458	40.0	2592	4559
1997	2400	0.166	26.5	19.7	28.0	22.7	3551	114.6	184	170	10.6	128	0.933	0.0476	40.4	2616	4631
1998	2968	0.205	27.1	20.2	28.5	23.2	3534	114.0	177	169	10.5	128	0.965	0.0476	41.2	2659	4690
1999	3141	0.206	27.1	20.1	28.4	23.2	3540	114.0	175	170	10.5	128	0.984	0.0479	41.2	2653	4688
2000	2894	0.175	27.0	20.1	28.2	23.1	3550	110.2	174	178	10.2	131	1.027	0.0498	41.1	2559	4532
2001	2480	0.159	27.2	20.3	28.4	23.3	3566	113.7	175	180	10.1	132	1.034	0.0503	41.7	2663	4738
2002	2807	0.174	27.7	20.8	28.5	23.7	3549	114.8	177	185	9.8	134	1.055	0.0519	42.2	2735	4842
2003	2510	0.161	28.4	21.2	29.6	24.3	3548	111.4	188	186	9.8	134	1.064	0.0522	43.3	2713	4821
2004	2654	0.160	28.4	21.1	29.7	24.3	3593	114.2	177	192	9.8	135	1.088	0.0530	44.1	2825	5037

Percent of MID-SIZE CAR:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	2.7	0.0	0.6	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1976	2.5	0.0	0.4	0.0	0.6	0.6	0.0	99.4	0.0	0.0
1977	2.1	0.0	0.3	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1978	1.4	0.0	1.7	11.1	1.4	1.4	0.0	98.6	0.0	0.0
1979	5.2	0.0	1.9	21.4	2.3	2.3	0.0	96.3	1.4	0.0
1980	30.2	0.0	7.8	25.3	2.5	1.0	1.5	94.9	2.5	0.0
1981	32.3	0.0	5.6	52.2	2.4	0.1	2.3	93.7	4.0	0.0
1982	44.7	0.0	2.0	82.6	15.6	0.2	15.4	80.7	3.8	0.0
1983	48.9	0.0	1.2	80.0	17.7	0.5	17.2	80.6	1.7	0.0
1984	55.1	0.0	0.9	82.0	29.4	3.8	25.6	69.7	1.0	0.0
1985	61.9	0.0	1.3	77.6	50.1	13.0	37.1	49.6	0.3	0.0
1986	71.0	0.1	1.8	76.4	67.7	25.4	42.3	32.1	0.2	0.0
1987	77.3	0.2	1.5	77.6	84.1	40.7	43.4	15.5	0.4	0.0
1988	87.0	0.1	3.8	91.1	94.9	66.9	28.0	5.1	0.0	0.1
1989	86.5	0.1	4.7	91.7	99.3	78.3	21.0	0.7	0.0	0.8
1990	85.2	0.2	3.9	93.9	100.0	86.6	13.3	0.0	0.0	5.1
1991	87.2	0.1	3.6	94.5	99.9	88.7	11.2	0.0	0.1	5.3
1992	79.1	0.1	2.7	96.6	100.0	94.7	5.3	0.0	0.0	20.0
1993	85.4	0.2	2.3	97.2	100.0	95.6	4.4	0.0	0.0	27.8
1994	84.7	0.0	2.0	97.7	100.0	96.0	4.0	0.0	0.0	31.4
1995	79.6	0.0	2.7	97.2	100.0	98.9	1.1	0.0	0.0	38.5
1996	91.9	0.0	4.3	94.9	99.7	99.7	0.0	0.0	0.3	47.2
1997	90.6	0.1	2.5	97.5	99.8	99.8	0.0	0.0	0.2	49.8
1998	95.2	0.5	3.0	97.0	99.9	99.9	0.0	0.0	0.1	57.1
1999	95.2	0.7	3.3	96.3	99.8	99.8	0.0	0.0	0.2	58.5
2000	92.3	0.9	3.5	95.7	100.0	100.0	0.0	0.0	0.0	71.7
2001	93.0	1.2	3.1	96.1	100.0	100.0	0.0	0.0	0.0	66.6
2002	94.2	0.8	2.6	97.1	100.0	100.0	0.0	0.0	0.0	74.7
2003	92.7	1.1	2.9	97.0	100.0	100.0	0.0	0.0	0.0	70.3
2004	89.7	0.9	5.8	91.7	100.0	100.0	0.0	0.0	0.0	76.1

# Appendix F

Table F-3

Characteristics of 1975 to 2004 LARGE CAR

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1555	0.152	13.1	10.2	12.6	11.2	5142		409	180	13.5	117	0.439	0.0348	28.9		
1976	1679	0.136	14.2	11.1	13.5	12.1	5156		410	180	13.4	117	0.440	0.0349	31.1		
1977	2319	0.164	15.9	12.4	15.2	13.5	4482	128.1	366	165	12.8	118	0.453	0.0370	30.4	1759	3895
1978	2048	0.142	16.8	13.0	16.3	14.3	4394	128.5	357	162	12.8	118	0.457	0.0370	31.7	1869	4071
1979	2111	0.152	17.4	13.7	16.5	14.8	4210	130.0	339	154	12.9	116	0.454	0.0365	31.3	1940	4073
1980	963	0.085	19.1	14.7	18.8	16.3	4130	130.9	314	137	14.0	112	0.440	0.0331	34.0	2156	4448
1981	956	0.091	20.4	15.4	20.8	17.4	4108	131.0	304	133	14.3	111	0.444	0.0325	36.4	2318	4762
1982	832	0.085	20.7	15.6	21.0	17.7	4034	131.0	292	135	13.9	112	0.468	0.0336	36.0	2333	4715
1983	1079	0.105	20.2	15.2	20.6	17.3	4041	131.3	292	140	13.4	113	0.481	0.0347	35.0	2272	4590
1984	1236	0.088	20.5	15.5	21.0	17.5	4022	130.9	294	140	13.4	114	0.478	0.0349	35.3	2298	4622
1985	1512	0.105	22.3	16.6	23.3	19.1	3841	129.3	279	143	12.7	116	0.512	0.0371	36.7	2470	4743
1986	1267	0.082	23.9	17.7	25.5	20.5	3719	127.4	260	147	12.1	119	0.577	0.0396	38.1	2617	4859
1987	1218	0.082	23.9	17.6	25.6	20.4	3696	127.0	259	149	11.8	120	0.587	0.0405	37.8	2602	4799
1988	1303	0.085	24.2	17.8	25.9	20.7	3730	128.1	262	150	11.9	120	0.587	0.0405	38.7	2666	4964
1989	1289	0.089	24.0	17.7	25.7	20.6	3721	127.4	261	158	11.4	122	0.619	0.0427	38.3	2626	4881
1990	1092	0.087	23.7	17.4	25.6	20.3	3799	126.7	258	161	11.4	123	0.639	0.0426	38.5	2575	4882
1991	1012	0.080	23.6	17.4	25.4	20.3	3893	129.0	264	178	10.7	127	0.685	0.0459	39.4	2616	5091
1992	1240	0.102	23.8	17.4	25.7	20.4	3872	129.6	262	185	10.4	130	0.715	0.0479	39.5	2649	5125
1993	1103	0.084	24.2	17.8	26.0	20.7	3831	128.9	256	181	10.5	129	0.720	0.0473	39.8	2685	5133
1994	1277	0.091	24.1	17.7	25.8	20.6	3858	128.3	248	188	10.2	131	0.766	0.0487	39.8	2650	5107
1995	1306	0.086	24.5	17.9	26.5	21.0	3831	127.9	248	206	9.4	138	0.845	0.0539	40.2	2689	5138
1996	1066	0.081	24.3	17.8	26.4	20.8	3894	127.6	250	217	9.2	140	0.879	0.0557	40.6	2670	5185
1997	1195	0.083	24.5	18.0	26.7	21.0	3821	127.4	242	216	9.1	141	0.903	0.0567	40.2	2690	5127
1998	913	0.063	24.6	18.0	26.5	21.1	3784	127.4	240	218	8.9	142	0.922	0.0575	39.9	2694	5083
1999	1059	0.070	24.8	18.2	26.7	21.3	3854	127.0	235	222	8.9	143	0.971	0.0576	41.0	2710	5209
2000	1665	0.100	25.6	18.8	27.4	21.9	3782	99.7	221	215	9.2	141	0.980	0.0564	41.4	2177	4176
2001	1416	0.091	25.4	18.7	27.2	21.8	3774	124.8	221	204	9.5	137	0.932	0.0538	41.2	2728	5139
2002	1252	0.078	26.0	19.2	27.6	22.3	3767	124.0	218	209	9.3	139	0.975	0.0554	42.0	2773	5205
2003	1210	0.077	25.7	19.0	27.4	22.0	3931	125.6	232	218	9.2	140	0.954	0.0556	43.3	2787	5446
2004	1519	0.091	26.0	19.2	27.6	22.2	3850	124.8	225	213	9.3	139	0.954	0.0552	42.9	2795	5350

Percent of LARGE CAR:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL FI	METERING				FOUR VALVE
	FRONT	4WD	MANUAL	LOCK		PORT	TBI	CARB	DSL	
1975	1.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	1.5	0.0	0.0	0.0	1.2	1.2	0.0	98.8	0.0	0.0
1977	1.5	0.0	0.0	0.0	0.5	0.5	0.0	99.5	0.0	0.0
1978	1.1	0.0	0.0	2.5	0.2	0.2	0.0	98.5	1.4	0.0
1979	0.0	0.0	0.0	6.5	0.2	0.2	0.0	96.4	3.5	0.0
1980	0.0	0.0	0.0	41.6	2.0	0.0	2.0	87.5	10.4	0.0
1981	0.0	0.0	0.0	89.8	17.1	0.0	17.1	67.7	15.2	0.0
1982	0.0	0.0	0.0	93.1	20.1	0.0	20.1	69.9	10.0	0.0
1983	0.0	0.0	0.0	99.9	37.3	0.0	37.3	60.3	2.4	0.0
1984	0.0	0.0	0.0	99.9	39.0	0.0	39.0	60.3	0.8	0.0
1985	31.9	0.0	0.0	100.0	64.0	19.1	44.9	35.7	0.3	0.0
1986	55.9	0.0	0.7	99.2	81.2	65.4	15.8	18.8	0.0	0.7
1987	60.9	0.0	0.5	99.5	85.1	69.9	15.2	14.9	0.0	1.1
1988	58.7	0.0	0.4	99.6	89.5	76.9	12.6	10.5	0.0	1.1
1989	61.9	0.0	0.3	99.7	97.0	74.8	22.2	3.0	0.0	0.8
1990	69.0	0.0	0.2	99.8	98.9	92.9	6.0	1.1	0.0	0.5
1991	59.8	0.0	0.4	99.6	100.0	83.3	16.7	0.0	0.0	0.9
1992	58.5	0.0	0.3	98.5	99.9	89.2	10.7	0.0	0.1	1.9
1993	64.8	0.0	0.4	98.2	100.0	89.7	10.3	0.0	0.0	8.0
1994	69.2	0.0	0.2	99.0	100.0	100.0	0.0	0.0	0.0	17.1
1995	71.2	0.0	0.2	98.2	99.9	99.9	0.0	0.0	0.1	30.4
1996	67.7	0.0	0.1	99.3	100.0	100.0	0.0	0.0	0.0	38.4
1997	72.4	0.0	0.4	99.6	100.0	100.0	0.0	0.0	0.0	35.6
1998	74.2	0.0	0.1	99.9	100.0	100.0	0.0	0.0	0.0	39.8
1999	72.5	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	50.0
2000	80.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	39.8
2001	79.3	0.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.6
2002	86.6	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	35.0
2003	70.5	0.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.7
2004	78.1	1.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.0



# Appendix F

Table F-4 Characteristics of 1975 to 2004 SMALL WAGON

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	477	0.047	22.4	17.4	21.6	19.1	2833		128	87	14.8	104	0.713	0.0306	27.3		
1976	345	0.028	23.9	18.7	22.9	20.4	2902		136	86	15.2	103	0.668	0.0296	29.8		
1977	384	0.027	25.5	20.2	23.8	21.7	2801	108.0	134	85	14.9	104	0.685	0.0304	30.8	2404	3317
1978	361	0.025	24.3	19.2	22.9	20.7	2805	108.0	134	90	14.3	105	0.709	0.0318	29.5	2291	3176
1979	310	0.022	25.7	20.3	24.3	21.9	2711	105.1	123	81	15.1	102	0.684	0.0294	29.8	2335	3135
1980	310	0.027	28.6	22.6	27.0	24.4	2591	108.2	113	75	15.4	101	0.685	0.0288	32.0	2702	3463
1981	418	0.040	30.0	23.6	28.5	25.6	2531	110.6	108	79	14.4	103	0.754	0.0312	32.6	2858	3601
1982	382	0.039	30.6	23.9	29.4	26.1	2580	112.2	109	75	15.3	101	0.698	0.0288	33.8	2951	3789
1983	531	0.052	32.2	25.3	30.5	27.4	2565	108.2	105	74	15.3	101	0.713	0.0288	35.3	2986	3817
1984	461	0.033	31.9	24.9	30.7	27.2	2620	116.5	107	77	15.2	102	0.719	0.0293	35.9	3206	4180
1985	496	0.034	32.5	25.4	30.9	27.7	2579	117.7	106	78	15.1	102	0.727	0.0299	35.9	3296	4227
1986	348	0.023	31.0	24.4	29.3	26.4	2647	118.4	113	82	14.7	103	0.730	0.0307	35.2	3175	4168
1987	361	0.024	30.7	24.1	29.2	26.2	2795	120.0	116	91	14.2	106	0.788	0.0323	36.8	3179	4415
1988	253	0.017	31.3	24.8	29.3	26.6	2757	118.7	113	93	13.7	107	0.829	0.0334	36.9	3190	4374
1989	159	0.011	31.5	24.8	29.9	26.8	2766	118.6	112	96	13.5	108	0.861	0.0341	37.2	3209	4416
1990	160	0.013	29.6	23.1	28.3	25.2	3026	122.2	120	110	12.9	111	0.920	0.0359	38.2	3111	4672
1991	209	0.017	30.6	23.7	29.7	26.1	3005	123.3	120	106	13.3	110	0.880	0.0349	39.3	3253	4843
1992	143	0.012	30.2	23.3	29.5	25.7	3076	123.7	122	123	12.4	116	1.016	0.0397	39.7	3223	4909
1993	301	0.023	32.5	25.0	32.2	27.8	2882	123.0	118	99	13.5	108	0.842	0.0342	40.2	3454	4944
1994	206	0.015	32.9	25.0	33.0	28.1	2908	122.9	121	103	13.3	110	0.848	0.0351	41.1	3506	5052
1995	198	0.013	33.3	25.5	33.3	28.5	2859	122.1	118	100	13.4	109	0.844	0.0348	40.8	3514	4983
1996	90	0.007	31.6	24.1	31.5	26.9	2952	118.0	122	114	12.5	113	0.928	0.0381	39.9	3218	4707
1997	150	0.010	32.3	24.5	32.5	27.6	2899	119.5	124	117	11.8	116	0.942	0.0403	40.0	3327	4781
1998	99	0.007	32.1	24.3	32.6	27.5	2872	116.9	124	119	11.7	117	0.957	0.0410	39.5	3241	4620
1999	78	0.005	31.5	23.9	32.0	26.9	2923	117.9	125	126	11.3	119	1.004	0.0426	39.5	3215	4655
2000	68	0.004	29.2	22.0	30.1	25.0	3107	119.7	127	143	10.7	123	1.129	0.0457	38.9	3015	4651
2001	212	0.014	27.3	20.9	27.1	23.3	3470	119.6	145	148	11.3	121	1.022	0.0426	40.5	2796	4841
2002	236	0.015	26.1	19.9	26.2	22.3	3504	118.2	145	156	11.0	124	1.085	0.0444	39.3	2657	4651
2003	264	0.017	28.9	22.3	28.2	24.6	3341	116.0	132	151	10.9	124	1.149	0.0450	41.7	2911	4824
2004	387	0.023	30.8	23.9	29.7	26.2	3268	117.5	129	172	9.9	132	1.325	0.0520	43.2	3136	5077

Percent of SMALL WAGON:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	13.3	0.0	48.6	0.0	0.8	0.8	0.0	99.2	0.0	0.0
1976	12.2	0.0	42.8	0.0	3.2	3.2	0.0	96.8	0.0	0.0
1977	23.3	0.0	52.9	0.0	6.4	6.4	0.0	93.0	0.6	0.0
1978	23.0	0.0	56.3	0.0	6.9	6.9	0.0	93.1	0.0	0.0
1979	13.3	12.1	59.3	0.0	1.0	1.0	0.0	99.0	0.0	0.0
1980	24.4	9.8	67.3	4.6	1.1	1.1	0.0	92.5	6.3	0.0
1981	57.9	8.0	62.0	8.1	4.0	4.0	0.0	93.9	2.2	0.0
1982	68.3	8.9	54.0	19.4	5.6	4.8	0.7	93.3	1.2	0.0
1983	55.4	39.3	51.0	23.7	20.7	3.7	17.0	79.0	0.3	0.0
1984	81.4	15.6	43.7	39.2	37.3	5.1	32.2	61.1	1.6	0.0
1985	60.0	39.6	42.7	42.2	21.7	6.2	15.4	77.8	0.5	0.0
1986	78.4	20.7	43.3	29.0	31.0	6.8	24.3	68.2	0.8	0.0
1987	76.6	23.4	34.4	41.0	71.8	29.2	42.6	28.2	0.0	16.3
1988	80.2	19.8	37.8	34.6	93.4	30.6	62.8	6.6	0.0	18.9
1989	89.9	10.1	26.6	51.8	89.7	41.0	48.8	10.3	0.0	36.9
1990	68.3	31.7	30.6	58.8	100.0	59.4	40.6	0.0	0.0	63.6
1991	79.1	20.9	24.4	74.1	100.0	80.0	20.0	0.0	0.0	48.6
1992	73.0	25.5	30.9	68.2	100.0	95.3	4.7	0.0	0.0	43.9
1993	83.2	16.2	28.9	70.6	100.0	95.8	4.2	0.0	0.0	19.9
1994	88.6	10.6	26.3	72.1	100.0	97.8	2.2	0.0	0.0	20.0
1995	92.8	4.6	23.8	76.2	100.0	100.0	0.0	0.0	0.0	25.7
1996	84.5	11.2	20.8	79.2	100.0	100.0	0.0	0.0	0.0	51.1
1997	83.1	14.3	19.4	80.6	100.0	100.0	0.0	0.0	0.0	40.2
1998	79.3	18.0	18.5	81.5	100.0	100.0	0.0	0.0	0.0	44.9
1999	71.8	22.8	20.1	77.6	100.0	100.0	0.0	0.0	0.0	58.7
2000	71.5	17.9	15.2	78.0	100.0	100.0	0.0	0.0	0.0	95.8
2001	92.6	5.1	14.9	84.5	100.0	100.0	0.0	0.0	0.0	95.2
2002	82.0	14.9	19.6	79.8	99.1	99.1	0.0	0.0	0.9	91.5
2003	84.4	12.7	16.8	83.2	99.2	99.2	0.0	0.0	0.8	91.1
2004	83.9	15.0	21.7	78.3	99.0	99.0	0.0	0.0	1.0	93.1

# Appendix F

Table F-5

Characteristics of 1975 to 2004 MID-SIZE WAGON

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	----> ADJ HWY	55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	289	0.028	13.2	10.2	12.9	11.3	4791		361	162	13.8	115	0.473	0.0337	27.4		
1976	485	0.039	16.0	12.6	15.1	13.6	4555		315	142	14.8	110	0.458	0.0311	31.2		
1977	548	0.039	16.3	12.9	15.3	13.9	4410	143.6	297	135	15.1	109	0.459	0.0304	30.7	2015	4417
1978	503	0.035	18.6	14.6	17.6	15.8	3836	140.0	258	123	14.4	109	0.484	0.0319	30.5	2240	4266
1979	482	0.035	19.1	15.2	17.9	16.3	3758	139.7	249	118	14.7	108	0.480	0.0312	30.7	2295	4293
1980	257	0.023	21.1	16.5	20.1	18.0	3534	139.7	228	107	15.0	106	0.482	0.0302	31.9	2542	4455
1981	272	0.026	23.1	18.1	21.8	19.6	3285	136.2	193	103	14.5	107	0.562	0.0315	32.4	2714	4417
1982	284	0.029	23.7	18.5	22.6	20.2	3384	136.1	205	108	14.3	108	0.551	0.0319	34.3	2781	4669
1983	276	0.027	24.4	19.1	23.3	20.8	3348	136.2	200	109	14.1	108	0.568	0.0323	35.0	2869	4759
1984	365	0.026	25.0	19.4	24.2	21.3	3298	135.9	172	107	14.1	108	0.633	0.0323	35.3	2922	4793
1985	341	0.024	25.2	19.4	24.6	21.5	3356	130.2	170	112	13.9	109	0.679	0.0332	36.2	2798	4718
1986	409	0.027	26.0	19.9	25.8	22.2	3355	137.8	162	115	13.6	110	0.718	0.0341	37.2	3066	5134
1987	359	0.024	25.6	19.5	25.8	21.9	3434	140.2	173	125	13.0	113	0.735	0.0362	37.6	3080	5280
1988	285	0.019	26.2	19.8	26.9	22.4	3378	139.4	171	126	12.7	114	0.743	0.0371	38.0	3144	5300
1989	239	0.017	25.6	19.3	26.4	21.9	3436	139.9	176	132	12.4	116	0.765	0.0382	37.7	3076	5283
1990	184	0.015	25.3	18.9	26.5	21.7	3498	141.6	181	139	12.0	118	0.781	0.0395	38.0	3076	5377
1991	122	0.010	25.9	19.3	27.1	22.2	3506	142.3	181	140	12.0	118	0.793	0.0398	39.0	3168	5550
1992	137	0.011	26.2	19.4	27.7	22.4	3503	142.6	188	143	11.8	119	0.777	0.0406	39.4	3208	5617
1993	166	0.013	26.2	19.5	27.5	22.5	3498	137.7	188	144	11.7	120	0.790	0.0410	39.4	3103	5427
1994	138	0.010	26.0	19.3	27.4	22.3	3532	137.4	180	151	11.4	122	0.863	0.0427	39.4	3069	5417
1995	176	0.012	26.6	19.9	27.8	22.8	3482	135.9	167	148	11.4	121	0.915	0.0426	39.7	3104	5402
1996	169	0.013	26.3	19.7	27.0	22.5	3661	136.9	161	153	11.5	122	0.965	0.0421	41.2	3090	5654
1997	149	0.010	26.3	19.8	26.8	22.4	3666	136.5	160	158	11.3	123	1.001	0.0433	41.1	3068	5621
1998	153	0.011	26.2	20.0	26.4	22.4	3669	135.3	155	169	10.7	127	1.096	0.0460	41.1	3041	5569
1999	181	0.012	26.3	19.9	26.9	22.5	3691	136.4	157	169	10.8	126	1.087	0.0457	41.6	3079	5674
2000	234	0.014	27.3	20.7	27.4	23.3	3572	134.0	153	162	11.0	125	1.060	0.0452	41.6	3146	5582
2001	236	0.015	26.6	20.3	26.5	22.7	3775	133.6	155	175	10.7	128	1.139	0.0463	43.1	3076	5751
2002	208	0.013	27.4	21.0	27.3	23.4	3731	133.6	152	172	10.7	127	1.136	0.0459	43.6	3142	5824
2003	165	0.011	26.2	19.8	26.6	22.4	3805	137.4	162	189	10.1	132	1.176	0.0494	42.6	3097	5854
2004	169	0.010	26.8	20.4	27.1	22.9	3800	134.6	156	183	10.4	130	1.190	0.0480	43.7	3113	5875

Percent of MID-SIZE WAGON:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	4.0	0.0	7.6	7.6	0.0	92.2	0.2	0.0
1976	0.0	0.0	7.1	0.0	3.4	3.4	0.0	96.5	0.1	0.0
1977	0.0	0.0	4.6	0.0	3.5	3.5	0.0	96.2	0.3	0.0
1978	0.0	0.0	5.3	17.2	3.0	3.0	0.0	96.8	0.3	0.0
1979	0.0	0.0	5.3	9.1	2.5	2.5	0.0	95.0	2.5	0.0
1980	0.0	0.0	9.9	43.8	4.3	4.3	0.0	89.8	5.9	0.0
1981	35.6	0.0	12.8	28.5	6.9	6.9	0.0	87.2	5.9	0.0
1982	28.2	0.0	7.4	62.6	5.7	5.7	0.0	88.0	6.3	0.0
1983	32.8	0.0	6.2	50.2	7.9	7.9	0.0	89.8	2.3	0.0
1984	69.9	0.0	5.4	62.5	30.7	10.4	20.3	66.8	2.5	0.0
1985	69.5	4.5	5.9	64.7	56.2	25.7	30.5	42.0	1.8	0.0
1986	82.2	2.1	9.1	71.0	79.3	51.3	28.0	20.6	0.2	0.0
1987	83.9	0.1	4.4	83.6	94.5	71.7	22.8	4.7	0.8	0.0
1988	87.7	0.7	3.8	87.2	100.0	70.2	29.8	0.0	0.0	0.0
1989	77.5	8.2	7.1	80.7	100.0	87.7	12.3	0.0	0.0	1.0
1990	81.1	0.4	1.7	87.9	100.0	98.5	1.5	0.0	0.0	3.4
1991	79.6	1.3	2.4	85.6	100.0	99.3	0.7	0.0	0.0	3.6
1992	80.8	0.6	1.7	88.9	100.0	99.7	0.3	0.0	0.0	10.3
1993	87.0	0.6	1.8	91.2	100.0	100.0	0.0	0.0	0.0	17.3
1994	89.0	0.4	1.6	94.0	100.0	100.0	0.0	0.0	0.0	20.1
1995	64.8	27.8	10.1	86.7	100.0	100.0	0.0	0.0	0.0	51.4
1996	61.0	39.0	12.9	87.1	99.2	99.2	0.0	0.0	0.8	63.5
1997	48.5	51.5	13.3	86.7	99.9	99.9	0.0	0.0	0.1	67.6
1998	32.8	64.1	13.7	86.3	100.0	100.0	0.0	0.0	0.0	82.3
1999	44.8	52.0	12.1	87.9	100.0	100.0	0.0	0.0	0.0	68.1
2000	54.4	43.3	9.9	90.1	100.0	100.0	0.0	0.0	0.0	69.0
2001	42.4	56.5	8.5	91.5	100.0	100.0	0.0	0.0	0.0	74.6
2002	49.0	50.3	8.9	91.1	100.0	100.0	0.0	0.0	0.0	80.8
2003	74.6	25.1	3.0	97.0	100.0	100.0	0.0	0.0	0.0	82.9
2004	47.4	50.9	9.1	90.9	100.0	100.0	0.0	0.0	0.0	74.8

# Appendix F

Table F-6

Characteristics of 1975 to 2004 LARGE WAGON

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	197	0.019	11.9	9.3	11.6	10.2	5453		410	181	14.0	116	0.441	0.0332	27.9		
1976	207	0.017	13.5	10.6	12.9	11.5	5444		416	185	13.7	117	0.445	0.0339	31.4		
1977	340	0.024	15.5	12.2	14.6	13.2	4713	163.1	365	161	13.6	115	0.442	0.0341	31.4	2185	5113
1978	293	0.020	15.9	12.4	15.4	13.6	4664	162.4	354	162	13.4	116	0.460	0.0348	31.8	2216	5161
1979	275	0.020	16.1	12.8	15.1	13.7	4466	162.5	333	155	13.4	115	0.465	0.0346	30.7	2240	4996
1980	102	0.009	19.1	14.7	18.9	16.3	4423	161.5	323	134	15.2	109	0.418	0.0302	36.9	2690	5953
1981	108	0.010	19.9	15.0	20.3	17.0	4394	161.4	312	131	15.3	108	0.424	0.0298	38.2	2797	6154
1982	146	0.015	19.2	14.4	19.8	16.4	4396	161.3	306	139	14.6	110	0.456	0.0316	36.5	2677	5877
1983	130	0.013	19.6	14.7	20.2	16.7	4379	161.6	307	142	14.1	112	0.465	0.0324	36.8	2714	5940
1984	176	0.013	19.9	14.9	20.5	17.0	4371	161.7	305	144	13.9	112	0.472	0.0329	37.3	2760	6028
1985	145	0.010	20.9	15.6	21.8	17.9	4354	161.7	305	153	13.2	115	0.504	0.0354	39.0	2894	6299
1986	120	0.008	22.0	16.3	23.4	18.9	4381	161.4	304	146	13.9	113	0.479	0.0334	41.4	3047	6673
1987	88	0.006	22.1	16.4	23.3	19.0	4348	161.8	304	143	14.0	112	0.470	0.0330	41.3	3068	6669
1988	75	0.005	22.8	17.1	23.7	19.5	4349	161.7	304	143	14.0	112	0.470	0.0330	42.5	3158	6865
1989	63	0.004	22.5	16.9	23.3	19.3	4334	161.8	304	143	13.9	112	0.471	0.0331	41.7	3116	6747
1990	31	0.002	22.7	16.9	23.6	19.4	4337	161.6	304	143	13.9	112	0.471	0.0331	42.1	3135	6795
1991	34	0.003	22.9	16.8	24.8	19.7	4402	169.1	304	177	11.9	122	0.581	0.0404	43.2	3323	7316
1992	27	0.002	22.7	16.5	25.0	19.5	4500	170.3	338	177	12.1	121	0.526	0.0393	43.8	3315	7459
1993	19	0.001	22.5	16.3	25.1	19.3	4500	168.9	340	174	12.2	120	0.513	0.0385	43.5	3265	7347
1994	16	0.001	22.9	16.7	25.0	19.7	4500	169.2	350	250	9.1	144	0.714	0.0554	44.2	3326	7484
1995	10	0.001	22.8	16.6	24.9	19.6	4500	167.6	350	250	9.1	144	0.714	0.0555	44.0	3279	7378
1996	9	0.001	23.2	16.8	25.6	19.9	4500	170.2	350	260	8.9	147	0.743	0.0577	44.8	3386	7618
2004	64	0.004	22.1	16.7	22.5	18.9	4750	165.0	215	249	9.6	141	1.158	0.0525	44.8	3112	7386

Percent of LARGE WAGON:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL		METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.6	1.4	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	74.0	0.0	0.0	0.0	73.3	26.7	0.0
1981	0.0	0.0	0.0	100.0	0.2	0.0	0.2	74.6	25.2	0.0
1982	0.0	0.0	0.0	100.0	0.0	0.0	0.0	89.0	11.0	0.0
1983	0.0	0.0	0.0	100.0	24.1	0.0	24.1	71.3	4.6	0.0
1984	0.0	0.0	0.0	100.0	25.8	0.0	25.8	72.7	1.5	0.0
1985	0.0	0.0	0.0	100.0	29.2	0.0	29.2	70.4	0.4	0.0
1986	0.0	0.0	0.0	100.0	23.7	23.7	0.0	76.3	0.0	0.0
1987	0.0	0.0	0.0	100.0	30.3	30.3	0.0	69.7	0.0	0.0
1988	0.0	0.0	0.0	100.0	30.2	30.2	0.0	69.8	0.0	0.0
1989	0.0	0.0	0.0	100.0	33.1	33.1	0.0	66.9	0.0	0.0
1990	0.0	0.0	0.0	100.0	32.7	32.7	0.0	67.3	0.0	0.0
1991	0.0	0.0	0.0	100.0	100.0	19.5	80.5	0.0	0.0	0.0
1992	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1993	0.2	0.0	0.0	100.0	100.0	0.2	99.8	0.0	0.0	0.0
1994	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	50.0	50.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix F

Table F-7

Characteristics of 1975 to 2004 SMALL VAN

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	2	0.000	20.6	16.2	19.6	17.5	3498	118	78	19.1	96	0.654	0.0204	30.7
1976	1	0.000	19.9	15.1	20.1	17.0	3500	120	67	20.9	92	0.557	0.0179	29.8
1977	2	0.000	22.2	17.2	21.5	18.9	3500	120	67	20.8	92	0.557	0.0180	33.1
1978	3	0.000	20.0	15.7	19.1	17.0	3500	120	67	20.9	92	0.558	0.0185	29.8
1979	8	0.001	18.7	14.8	17.6	16.0	3500	120	67	20.9	92	0.558	0.0188	28.0
1980	16	0.001	19.0	14.7	18.6	16.2	3618	120	67	21.4	91	0.558	0.0182	29.4
1981	11	0.001	18.5	14.6	17.4	15.8	3644	120	67	21.6	91	0.558	0.0181	28.7
1982	15	0.002	21.7	17.7	19.4	18.4	3668	111	61	23.4	89	0.549	0.0164	35.6
1983	14	0.001	19.7	15.6	18.4	16.8	3567	118	69	20.9	92	0.582	0.0185	30.3
1984	83	0.006	25.6	20.8	23.0	21.7	3313	120	87	16.6	100	0.720	0.0263	36.4
1985	93	0.006	25.5	20.7	23.1	21.7	3270	121	88	16.2	101	0.726	0.0270	35.6
1986	102	0.007	25.7	20.8	23.2	21.8	3298	131	95	15.3	104	0.728	0.0289	36.2
1987	126	0.008	24.3	19.6	22.1	20.7	3299	134	98	15.0	105	0.736	0.0299	34.3
1988	55	0.004	24.5	19.6	22.6	20.8	3402	134	100	15.1	105	0.751	0.0294	35.6
1989	35	0.002	25.0	20.2	22.7	21.3	3390	130	98	15.3	104	0.755	0.0289	36.1
1990	30	0.002	23.9	19.0	22.3	20.3	3554	140	120	14.0	111	0.854	0.0339	36.3
1991	15	0.001	24.0	19.2	22.0	20.4	3402	124	95	15.8	103	0.761	0.0276	34.6
1992	40	0.003	27.0	21.0	26.0	23.0	3217	129	115	13.0	112	0.901	0.0352	37.0
1993	12	0.001	28.2	21.9	27.3	24.1	3032	121	120	12.0	115	0.990	0.0390	36.5
1994	11	0.001	27.0	20.8	26.6	23.1	3248	135	130	11.9	117	0.965	0.0396	37.6
1995	6	0.000	26.5	20.5	25.8	22.6	3163	134	130	11.7	118	0.966	0.0407	35.9
1996	2	0.000	26.2	20.0	26.1	22.4	3416	142	134	12.1	117	0.947	0.0374	38.2

Percent of SMALL VAN:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	43.3	0.0	61.1	0.0	0.0	38.9	0.0	0.0
1976	0.0	0.0	84.8	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1977	0.0	0.0	89.9	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1978	0.0	0.0	85.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1979	0.0	0.0	81.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1980	0.0	0.0	82.9	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	81.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1982	0.0	0.0	89.0	0.0	61.7	0.0	0.0	0.0	38.3	0.0
1983	4.2	0.0	76.9	0.0	93.6	0.0	0.0	0.0	6.4	0.0
1984	20.0	0.0	41.9	50.1	80.0	0.0	0.0	17.6	2.4	0.0
1985	18.7	3.2	40.8	53.3	78.1	0.0	0.0	21.9	0.0	0.0
1986	22.4	13.1	36.4	60.8	64.5	64.5	0.0	35.5	0.0	0.0
1987	20.5	17.0	30.4	66.8	83.2	65.1	18.1	16.8	0.0	0.0
1988	21.1	16.0	28.4	68.6	100.0	81.6	18.4	0.0	0.0	0.0
1989	27.6	21.3	30.0	65.4	100.0	99.7	0.3	0.0	0.0	0.0
1990	55.8	22.8	20.8	55.9	100.0	99.0	1.0	0.0	0.0	0.0
1991	42.3	28.4	45.2	36.5	100.0	100.0	0.0	0.0	0.0	0.0
1992	84.4	15.6	26.8	73.2	100.0	100.0	0.0	0.0	0.0	0.0
1993	98.5	1.5	14.5	85.5	100.0	100.0	0.0	0.0	0.0	69.3
1994	66.1	33.9	14.1	85.9	100.0	100.0	0.0	0.0	0.0	23.3
1995	27.3	72.7	18.8	81.2	100.0	100.0	0.0	0.0	0.0	100.0
1996	92.3	7.7	3.8	96.2	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix F

Table F-8

Characteristics of 1975 to 2004 MID-SIZE VAN

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	302	0.030	13.3	10.8	11.9	11.3	4230	310	141	13.9	112	0.453	0.0332	24.5
1976	308	0.025	14.1	11.3	12.9	12.0	4277	317	143	14.0	112	0.449	0.0332	26.1
1977	313	0.022	14.3	11.6	12.8	12.1	4348	326	149	13.6	114	0.456	0.0341	26.6
1978	399	0.028	13.8	11.3	12.2	11.7	4345	327	152	13.3	115	0.465	0.0349	25.9
1979	313	0.023	14.3	11.8	12.5	12.1	4506	320	137	15.0	109	0.433	0.0303	27.6
1980	130	0.011	16.9	13.5	15.6	14.3	4230	288	136	14.3	111	0.475	0.0317	30.5
1981	138	0.013	17.9	14.3	16.5	15.2	4248	279	134	14.6	110	0.480	0.0312	32.4
1982	180	0.019	17.9	14.3	16.5	15.2	4266	284	139	14.3	111	0.485	0.0321	32.5
1983	230	0.022	18.7	14.8	17.4	15.9	4396	294	141	14.5	111	0.480	0.0318	35.3
1984	420	0.030	19.2	15.1	18.1	16.3	4081	248	127	14.8	109	0.537	0.0307	33.8
1985	600	0.041	19.8	15.8	18.5	16.9	3945	233	131	14.1	111	0.586	0.0329	33.7
1986	782	0.051	20.8	16.3	19.7	17.7	3964	224	129	14.3	110	0.595	0.0322	35.3
1987	848	0.057	21.2	16.5	20.4	18.1	3959	226	146	12.9	116	0.671	0.0367	36.0
1988	941	0.062	21.8	16.8	21.3	18.6	3974	223	148	12.7	117	0.691	0.0372	37.1
1989	1100	0.076	21.8	16.8	21.2	18.6	3980	218	146	12.9	116	0.700	0.0366	37.2
1990	1124	0.089	21.8	16.8	21.4	18.6	4033	219	148	12.9	116	0.693	0.0367	37.7
1991	943	0.075	21.9	16.9	21.4	18.6	4079	214	148	13.0	116	0.714	0.0362	38.2
1992	1088	0.089	21.8	16.8	21.4	18.6	4102	218	152	12.8	117	0.713	0.0369	38.4
1993	1323	0.100	22.3	17.1	22.2	19.1	4033	211	153	12.5	118	0.741	0.0380	38.5
1994	1273	0.091	22.0	16.9	21.8	18.8	4075	218	157	12.4	119	0.731	0.0384	38.4
1995	1552	0.102	22.2	16.9	22.2	19.0	4041	226	158	12.3	119	0.717	0.0389	38.5
1996	1298	0.099	22.8	17.3	22.9	19.5	4115	211	168	11.8	122	0.806	0.0410	40.2
1997	1126	0.078	22.6	17.2	22.7	19.3	4132	210	168	11.8	122	0.810	0.0407	40.0
1998	1357	0.094	23.3	17.6	23.7	19.9	4090	209	176	11.3	125	0.849	0.0431	40.8
1999	1294	0.085	23.0	17.4	23.5	19.7	4199	213	177	11.4	124	0.842	0.0422	41.4
2000	1522	0.092	23.5	17.7	24.0	20.1	4197	208	178	11.4	124	0.869	0.0426	42.1
2001	1118	0.072	23.9	18.0	24.3	20.4	4297	210	191	10.9	128	0.919	0.0446	43.9
2002	1131	0.070	23.7	17.9	24.2	20.3	4332	210	197	10.8	129	0.945	0.0456	44.0
2003	1069	0.068	24.2	18.3	24.8	20.7	4290	213	199	10.6	130	0.943	0.0464	44.5
2004	1061	0.064	23.9	17.9	24.7	20.4	4409	216	208	10.5	132	0.975	0.0473	45.2

Percent of MID-SIZE VAN:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL FI	METERING				FOUR VALVE
	FRONT	4WD	MANUAL	LOCK		PORT	TBI	CARB	DSL	
1975	0.0	0.0	19.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	17.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	11.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	10.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	13.5	10.4	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	21.9	71.3	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.6	0.0	16.0	81.1	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	10.5	78.7	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	9.1	77.2	0.0	0.0	0.0	92.9	7.1	0.0
1984	32.0	0.0	12.0	48.7	0.0	0.0	0.0	98.5	1.5	0.0
1985	40.4	0.0	6.1	45.9	1.1	0.1	0.0	98.5	0.4	0.0
1986	29.7	0.0	5.7	61.5	32.7	10.9	21.7	67.1	0.2	0.0
1987	33.1	0.0	3.9	70.6	73.6	36.9	36.8	26.3	0.1	0.0
1988	42.4	0.0	2.6	83.1	99.7	49.9	49.8	0.2	0.1	0.0
1989	39.0	0.1	2.3	80.2	99.9	52.0	47.9	0.0	0.1	0.0
1990	51.0	6.8	1.2	96.2	99.9	53.5	46.4	0.0	0.1	0.0
1991	41.2	11.5	0.7	99.0	99.9	60.2	39.7	0.0	0.1	0.0
1992	47.8	5.6	0.8	98.3	99.9	68.6	31.3	0.0	0.1	0.0
1993	53.4	4.9	1.1	98.6	100.0	77.4	22.6	0.0	0.0	0.0
1994	57.7	6.9	0.4	98.7	100.0	79.3	20.7	0.0	0.0	1.3
1995	65.5	9.4	0.0	99.5	100.0	86.9	13.1	0.0	0.0	3.4
1996	80.0	2.5	0.0	99.5	100.0	100.0	0.0	0.0	0.0	5.0
1997	72.6	5.3	0.0	99.5	100.0	100.0	0.0	0.0	0.0	5.9
1998	86.0	3.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.4
1999	86.0	3.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	14.1
2000	89.5	3.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	24.0
2001	92.4	2.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0	24.9
2002	92.6	3.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	31.1
2003	91.1	5.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	24.4
2004	92.8	3.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	47.9

# Appendix F

Table F-9

Characteristics of 1975 to 2004 LARGE VAN

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	153	0.015	12.6	10.0	11.7	10.7	4135	334	148	13.7	115	0.434	0.0354	22.5
1976	192	0.016	13.4	10.6	12.7	11.4	4081	335	151	13.3	117	0.444	0.0369	23.8
1977	199	0.014	15.5	12.5	14.1	13.2	4110	343	158	12.6	119	0.459	0.0384	27.4
1978	224	0.015	15.0	12.2	13.6	12.8	4088	335	145	13.3	114	0.429	0.0353	26.5
1979	159	0.011	12.1	9.7	11.1	10.3	4665	336	163	13.5	116	0.480	0.0347	24.3
1980	96	0.008	16.0	12.8	14.7	13.6	4639	315	133	15.5	107	0.421	0.0284	31.9
1981	96	0.009	16.8	13.5	15.3	14.3	4513	310	128	15.6	107	0.414	0.0282	32.5
1982	115	0.012	16.1	13.0	14.7	13.7	4548	314	131	15.5	107	0.418	0.0286	31.5
1983	138	0.013	16.2	12.9	15.0	13.8	4532	314	134	15.1	108	0.429	0.0295	31.5
1984	174	0.012	16.4	13.0	15.4	14.0	4421	314	143	14.4	111	0.451	0.0320	31.2
1985	162	0.011	16.1	12.7	15.1	13.7	4491	312	146	14.3	112	0.464	0.0322	30.9
1986	160	0.010	17.6	13.9	16.5	15.0	4610	306	142	14.9	110	0.464	0.0306	34.7
1987	140	0.009	17.0	13.4	16.2	14.5	4659	309	155	13.9	113	0.500	0.0331	33.9
1988	137	0.009	16.9	13.2	16.2	14.4	4858	309	156	14.3	113	0.501	0.0319	35.1
1989	142	0.010	16.8	13.2	16.0	14.3	4821	309	155	14.3	113	0.501	0.0321	34.6
1990	107	0.009	16.5	12.9	15.9	14.1	4901	314	162	14.0	114	0.514	0.0328	34.7
1991	76	0.006	16.7	13.0	16.1	14.2	4943	312	162	14.1	114	0.518	0.0325	35.3
1992	93	0.008	16.9	13.0	16.6	14.4	5132	315	167	14.2	114	0.527	0.0324	37.2
1993	106	0.008	17.0	13.1	16.5	14.5	5132	315	178	13.5	117	0.565	0.0347	37.3
1994	112	0.008	17.0	13.0	16.8	14.5	5156	318	183	13.3	118	0.576	0.0355	37.4
1995	104	0.007	17.1	13.1	16.9	14.6	5185	314	178	13.7	117	0.567	0.0343	37.8
1996	109	0.008	17.1	13.1	16.9	14.6	5153	325	197	12.7	122	0.604	0.0383	37.6
1997	139	0.010	18.6	14.1	18.6	15.9	5121	300	221	11.3	129	0.740	0.0431	40.7
1998	132	0.009	18.3	13.9	18.4	15.7	5137	297	220	11.3	129	0.745	0.0429	40.3
1999	171	0.011	17.9	13.7	17.9	15.3	5125	297	223	11.2	130	0.756	0.0435	39.2
2000	170	0.010	18.0	13.8	17.7	15.3	4988	296	221	11.1	130	0.750	0.0443	38.3
2001	119	0.008	18.1	13.9	17.8	15.4	5035	293	221	11.1	130	0.757	0.0437	38.9
2002	112	0.007	17.9	13.9	17.5	15.3	5025	293	223	11.0	130	0.765	0.0442	38.6
2003	222	0.014	17.9	13.6	17.9	15.3	5658	318	261	10.8	135	0.821	0.0458	43.3
2004	98	0.006	19.0	14.7	18.7	16.2	5449	303	252	10.7	135	0.825	0.0460	44.3

Percent of LARGE VAN:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	0.0	31.4	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	0.0	24.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	0.0	17.4	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	0.0	16.5	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	0.0	13.9	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	0.0	22.2	1.6	0.0	0.0	0.0	100.0	0.0 0.0
1981	0.0	0.0	23.5	2.6	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	0.0	14.4	0.4	0.0	0.0	0.0	100.0	0.0 0.0
1983	0.0	0.0	10.3	35.6	0.0	0.0	0.0	100.0	0.0 0.0
1984	0.0	0.0	11.2	35.8	0.0	0.0	0.0	100.0	0.0 0.0
1985	0.0	0.0	6.5	49.5	0.0	0.0	0.0	100.0	0.0 0.0
1986	0.0	0.0	4.8	52.8	47.7	47.7	0.0	51.1	1.2 0.0
1987	0.0	0.0	2.0	50.4	84.1	82.8	1.4	15.9	0.0 0.0
1988	0.0	0.0	1.5	52.5	99.2	94.7	4.5	0.8	0.0 0.0
1989	0.0	0.0	1.2	51.1	100.0	95.0	5.0	0.0	0.0 0.0
1990	0.0	0.0	0.0	75.3	100.0	94.5	5.5	0.0	0.0 0.0
1991	0.0	0.0	0.0	77.6	100.0	95.0	5.0	0.0	0.0 0.0
1992	0.0	0.0	0.0	83.7	100.0	97.2	2.8	0.0	0.0 0.0
1993	0.0	0.2	0.0	80.9	100.0	97.3	2.7	0.0	0.0 0.0
1994	0.0	0.0	0.0	83.7	100.0	98.1	1.9	0.0	0.0 0.0
1995	1.7	0.0	0.8	80.2	100.0	94.5	5.5	0.0	0.0 0.0
1996	0.0	0.0	0.0	85.1	100.0	100.0	0.0	0.0	0.0 0.0
1997	1.2	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
1999	0.6	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
2000	1.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
2002	0.7	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.7
2003	1.3	51.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 1.3
2004	0.0	15.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0

# Appendix F

Table F-10

Characteristics of 1975 to 2004 SMALL SUV

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	53	0.005	16.1	12.7	15.1	13.7	2897	273	118	11.9	117	0.429	0.0415	19.8
1976	60	0.005	15.9	12.8	14.5	13.5	2980	273	108	12.7	112	0.397	0.0365	20.3
1977	72	0.005	17.0	13.7	15.5	14.5	3055	274	111	12.7	112	0.405	0.0366	22.2
1978	91	0.006	16.9	13.5	15.4	14.3	2986	275	109	12.6	112	0.398	0.0369	21.4
1979	104	0.008	16.7	13.9	14.5	14.2	3192	261	117	12.7	113	0.463	0.0366	22.6
1980	60	0.005	18.8	15.3	17.0	16.0	3083	227	95	14.6	105	0.453	0.0305	24.9
1981	43	0.004	20.4	16.3	18.7	17.3	3054	224	102	13.6	108	0.475	0.0334	26.7
1982	42	0.004	20.5	16.6	18.5	17.4	2922	207	97	13.9	107	0.495	0.0329	25.5
1983	55	0.005	21.4	17.4	19.1	18.1	2830	210	100	13.3	109	0.505	0.0348	25.6
1984	145	0.010	21.6	17.3	19.8	18.3	3302	186	101	14.7	106	0.563	0.0307	30.3
1985	115	0.008	22.1	17.2	21.3	18.8	3438	167	98	15.5	103	0.596	0.0284	32.3
1986	177	0.012	23.7	18.6	22.4	20.2	3231	167	118	13.0	112	0.733	0.0360	32.5
1987	254	0.017	24.2	19.1	22.7	20.6	3169	161	112	13.4	110	0.723	0.0346	32.6
1988	288	0.019	24.2	19.2	22.6	20.6	3128	157	112	13.2	111	0.739	0.0350	32.2
1989	228	0.016	22.8	18.1	21.3	19.4	3443	171	120	13.3	111	0.731	0.0346	33.5
1990	189	0.015	23.4	18.7	21.7	19.9	3329	162	115	13.4	110	0.749	0.0344	33.3
1991	136	0.011	23.6	19.4	20.9	20.1	3195	145	110	14.0	109	0.768	0.0338	32.3
1992	129	0.011	23.4	19.2	20.8	19.9	3087	146	117	13.0	113	0.811	0.0372	31.2
1993	144	0.011	23.2	19.0	20.7	19.7	3113	150	121	12.8	114	0.814	0.0382	31.0
1994	175	0.013	23.8	19.3	21.4	20.2	3074	142	118	12.8	114	0.842	0.0378	31.3
1995	189	0.013	24.2	19.7	21.7	20.5	2965	138	117	12.4	115	0.864	0.0391	30.8
1996	120	0.009	28.5	22.8	26.2	24.3	2896	107	106	12.8	111	0.988	0.0364	35.2
1997	489	0.034	22.8	17.8	21.7	19.4	3473	182	152	11.2	122	0.861	0.0434	33.9
1998	316	0.022	23.8	18.8	22.4	20.3	3474	162	154	11.2	123	0.970	0.0440	35.7
1999	314	0.021	24.1	19.1	22.5	20.5	3522	157	148	11.5	121	0.969	0.0417	36.6
2000	400	0.024	22.5	17.9	21.0	19.2	3742	171	154	11.7	121	0.929	0.0410	36.2
2001	390	0.025	24.9	19.8	23.0	21.1	3483	153	152	11.1	123	1.026	0.0436	37.3
2002	316	0.020	25.2	19.9	23.6	21.4	3493	155	156	10.9	124	1.051	0.0447	38.1
2003	310	0.020	24.7	19.4	23.5	21.0	3697	160	162	11.0	124	1.040	0.0441	39.0
2004	229	0.014	25.6	19.9	24.6	21.8	3516	168	171	10.2	129	1.049	0.0487	38.7

Percent of SMALL SUV:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	88.3	100.0	0.0	0.0	0.0	0.0	100.0	0.0
1976	0.0	85.9	84.6	0.0	0.0	0.0	0.0	100.0	0.0
1977	0.0	79.1	90.1	0.0	0.0	0.0	0.0	100.0	0.0
1978	0.0	85.5	86.9	0.0	0.0	0.0	0.0	100.0	0.0
1979	0.0	87.3	77.5	0.0	0.0	0.0	0.0	100.0	0.0
1980	0.0	100.0	88.6	0.0	0.0	0.0	0.0	100.0	0.0
1981	0.0	100.0	90.5	8.8	0.0	0.0	0.0	100.0	0.0
1982	0.0	74.2	67.4	6.8	0.0	0.0	0.0	100.0	0.0
1983	0.0	77.2	70.5	6.6	0.0	0.0	0.0	100.0	0.0
1984	0.0	97.9	42.2	3.2	0.0	0.0	0.0	100.0	0.0
1985	0.0	100.0	55.1	44.0	0.0	0.0	0.0	100.0	0.0
1986	0.0	100.0	60.2	37.4	62.3	62.3	0.0	37.7	0.0
1987	0.0	91.0	65.3	25.3	48.2	44.0	4.2	51.8	0.0
1988	0.0	86.7	67.3	27.3	54.0	51.7	2.3	46.0	0.0
1989	0.0	84.9	60.4	31.1	79.9	53.9	26.0	20.1	0.0
1990	0.0	85.8	64.6	31.6	84.2	48.2	36.0	15.8	0.0
1991	0.0	65.6	61.0	33.9	98.7	39.3	59.4	1.3	0.0
1992	0.0	62.6	66.5	28.8	97.7	49.7	47.9	2.3	0.0
1993	0.0	66.4	63.5	31.0	97.7	57.3	40.4	2.3	0.0
1994	0.0	65.2	60.3	25.3	100.0	67.7	32.3	0.0	9.1
1995	0.0	86.6	70.4	29.6	100.0	78.9	21.1	0.0	0.0
1996	14.9	65.6	39.7	60.3	100.0	100.0	0.0	0.0	100.0
1997	6.2	78.3	41.6	53.9	100.0	100.0	0.0	0.0	47.3
1998	8.8	73.6	42.6	57.4	100.0	100.0	0.0	0.0	71.4
1999	8.7	79.0	35.4	64.6	100.0	100.0	0.0	0.0	61.9
2000	5.4	67.2	27.1	72.9	100.0	100.0	0.0	0.0	37.1
2001	10.4	62.9	20.6	79.4	100.0	100.0	0.0	0.0	53.3
2002	22.6	67.6	22.7	77.2	100.0	100.0	0.0	0.0	61.1
2003	34.0	64.4	9.0	90.9	100.0	100.0	0.0	0.0	75.6
2004	18.0	77.1	23.8	76.2	100.0	100.0	0.0	0.0	78.5

# Appendix F

Table F-11

Characteristics of 1975 to 2004 MID-SIZE SUV

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	123	0.012	12.1	9.9	10.6	10.2	4724	349	156	14.0	113	0.445	0.0325	24.3
1976	168	0.014	13.3	10.7	12.0	11.3	4730	354	150	14.5	112	0.422	0.0313	26.7
1977	194	0.014	14.6	11.8	13.2	12.4	4610	349	153	13.9	113	0.438	0.0330	28.7
1978	270	0.019	13.8	11.1	12.7	11.8	4653	358	160	13.4	115	0.448	0.0343	27.4
1979	187	0.013	11.9	9.7	10.5	10.1	4807	344	153	14.5	112	0.445	0.0316	24.3
1980	100	0.009	14.3	11.5	13.0	12.1	4708	324	145	14.8	110	0.448	0.0304	28.9
1981	79	0.008	15.6	12.4	14.5	13.3	4664	317	140	15.0	109	0.445	0.0297	31.3
1982	98	0.010	16.4	13.1	15.2	13.9	4732	320	140	15.2	109	0.440	0.0294	34.2
1983	203	0.020	18.8	14.6	18.0	16.0	4312	250	126	15.3	107	0.537	0.0290	35.4
1984	431	0.031	18.9	14.8	18.1	16.1	4092	226	123	15.0	107	0.571	0.0298	33.7
1985	563	0.039	19.7	15.3	19.2	16.8	4011	212	122	14.9	108	0.602	0.0303	34.3
1986	538	0.035	19.7	15.4	18.8	16.8	4006	204	126	14.4	109	0.653	0.0314	34.0
1987	562	0.038	19.8	15.3	19.2	16.9	3975	216	141	13.3	114	0.679	0.0356	33.8
1988	610	0.040	19.5	15.1	19.0	16.6	4017	234	152	12.6	118	0.675	0.0384	33.7
1989	624	0.043	19.5	15.2	18.9	16.7	4026	254	161	12.0	121	0.650	0.0406	33.8
1990	447	0.035	19.1	14.8	18.7	16.3	4079	243	162	12.1	121	0.689	0.0403	33.4
1991	904	0.072	20.2	15.5	19.9	17.2	4112	236	163	12.0	120	0.699	0.0399	35.6
1992	799	0.066	19.9	15.3	19.6	16.9	4106	233	170	11.7	123	0.735	0.0418	34.9
1993	1038	0.079	20.0	15.3	19.9	17.1	4115	242	183	11.0	127	0.764	0.0449	35.3
1994	1240	0.089	19.7	15.2	19.5	16.9	4196	239	182	11.2	126	0.769	0.0437	35.5
1995	1397	0.092	19.6	15.1	19.4	16.8	4213	237	179	11.4	125	0.766	0.0428	35.5
1996	1528	0.116	20.0	15.3	19.9	17.1	4196	249	182	11.2	126	0.740	0.0438	36.0
1997	1401	0.097	20.5	15.8	20.0	17.5	4220	235	178	11.5	124	0.779	0.0425	37.0
1998	1623	0.112	20.8	15.9	20.5	17.7	4151	236	178	11.3	125	0.774	0.0431	36.9
1999	1768	0.116	21.0	16.3	20.5	17.9	4175	228	189	10.8	128	0.855	0.0453	37.5
2000	1863	0.112	21.0	16.2	20.5	17.9	4170	229	188	10.9	128	0.846	0.0452	37.4
2001	1746	0.112	21.5	16.6	21.1	18.4	4071	211	194	10.5	131	0.945	0.0477	37.5
2002	1802	0.112	21.8	16.9	21.2	18.6	4090	204	198	10.3	132	0.989	0.0486	38.2
2003	2257	0.144	22.4	17.2	22.1	19.1	4153	212	205	10.1	133	0.990	0.0495	39.9
2004	2260	0.136	22.5	17.3	22.2	19.2	4185	212	208	10.1	134	1.000	0.0499	40.4

Percent of MID-SIZE SUV:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	88.4	18.3	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	91.1	17.7	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	89.5	17.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	93.9	17.7	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	90.3	19.1	1.2	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	95.8	22.4	29.7	0.0	0.0	0.0	97.1	2.9 0.0
1981	0.0	96.8	21.0	48.6	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	93.0	19.8	45.0	0.0	0.0	0.0	86.5	13.5 0.0
1983	0.0	89.2	26.3	56.1	0.0	0.0	0.0	95.7	4.3 0.0
1984	0.0	86.9	28.2	50.0	0.0	0.0	0.0	98.8	1.2 0.0
1985	0.0	81.4	25.1	59.4	7.0	0.0	0.0	92.2	0.8 0.0
1986	0.0	87.3	33.8	57.1	50.8	13.9	36.9	47.9	1.3 0.0
1987	0.0	85.5	27.6	63.6	84.8	31.4	53.4	15.0	0.2 0.0
1988	0.0	87.1	21.1	70.2	96.9	50.8	46.1	3.0	0.1 0.0
1989	0.0	86.4	16.7	75.4	97.9	48.7	49.2	2.0	0.1 0.0
1990	0.0	89.8	19.6	75.9	98.4	70.4	28.0	1.5	0.1 0.0
1991	0.0	79.6	17.3	81.7	99.6	64.9	34.6	0.4	0.0 0.0
1992	0.0	74.4	17.4	82.6	100.0	82.6	17.4	0.0	0.0 0.0
1993	0.0	58.1	11.6	88.4	100.0	99.4	0.6	0.0	0.0 0.0
1994	0.0	78.9	11.3	88.7	100.0	99.7	0.3	0.0	0.0 6.8
1995	0.0	79.4	10.3	89.7	100.0	100.0	0.0	0.0	0.0 19.7
1996	0.0	70.8	6.1	93.9	100.0	100.0	0.0	0.0	0.0 11.2
1997	0.0	68.5	5.9	94.1	100.0	100.0	0.0	0.0	0.0 24.2
1998	1.2	71.6	4.7	95.3	100.0	100.0	0.0	0.0	0.0 19.7
1999	2.7	68.5	3.8	96.2	100.0	100.0	0.0	0.0	0.0 28.4
2000	3.1	69.1	2.8	97.2	100.0	100.0	0.0	0.0	0.0 30.3
2001	12.5	63.6	3.5	96.5	100.0	100.0	0.0	0.0	0.0 50.9
2002	15.8	62.2	4.7	95.1	100.0	100.0	0.0	0.0	0.0 64.0
2003	18.2	64.4	2.5	93.3	100.0	100.0	0.0	0.0	0.0 60.0
2004	18.0	65.2	3.3	93.0	100.0	100.0	0.0	0.0	0.0 64.9



# Appendix F

Table F-12

Characteristics of 1975 to 2004 LARGE SUV

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	11	0.001	12.2	10.0	10.7	10.3	4728	364	171	13.0	118	0.463	0.0338	24.5
1976	16	0.001	12.7	10.1	11.6	10.8	4904	373	166	13.9	115	0.437	0.0321	26.6
1977	17	0.001	13.6	11.1	12.2	11.6	4870	371	170	13.6	116	0.450	0.0330	28.6
1978	19	0.001	13.2	10.8	11.7	11.2	4953	373	168	13.5	116	0.453	0.0323	27.9
1979	109	0.008	11.1	9.3	9.4	9.4	5260	375	152	15.8	109	0.403	0.0287	24.8
1980	23	0.002	14.3	11.3	13.4	12.2	5188	340	160	14.7	112	0.470	0.0303	31.8
1981	14	0.001	15.3	12.3	14.1	13.0	5127	338	170	13.9	115	0.502	0.0328	33.4
1982	22	0.002	18.9	14.4	18.9	16.1	5410	344	146	16.5	107	0.427	0.0269	45.0
1983	30	0.003	17.6	13.6	17.1	15.0	5327	355	153	15.8	109	0.434	0.0287	41.5
1984	49	0.003	16.9	13.0	16.5	14.4	5247	351	157	15.1	111	0.450	0.0300	38.6
1985	57	0.004	16.9	12.9	16.8	14.4	5248	350	161	14.9	112	0.460	0.0307	38.4
1986	58	0.004	16.8	12.9	16.8	14.4	5227	350	162	14.7	112	0.463	0.0310	38.0
1987	57	0.004	17.0	13.1	16.7	14.5	5501	350	205	12.7	122	0.587	0.0372	40.0
1988	69	0.005	16.6	12.8	16.3	14.2	5518	351	199	13.0	120	0.567	0.0360	39.2
1989	74	0.005	16.7	12.7	16.8	14.3	5716	351	208	12.9	121	0.594	0.0364	40.9
1990	72	0.006	16.7	12.7	16.9	14.3	5720	351	208	12.9	121	0.595	0.0364	40.9
1991	54	0.004	16.2	12.4	16.0	13.8	5570	328	197	13.3	119	0.603	0.0352	38.7
1992	75	0.006	15.7	12.0	15.5	13.4	5578	331	204	12.9	121	0.629	0.0365	37.4
1993	129	0.010	16.3	12.5	16.2	13.9	5652	345	210	12.6	122	0.612	0.0373	39.4
1994	169	0.012	16.4	12.7	16.0	14.0	5628	343	210	12.6	122	0.616	0.0374	39.4
1995	230	0.015	16.6	12.8	16.2	14.2	5576	347	206	12.7	122	0.594	0.0369	39.5
1996	241	0.018	17.3	13.3	17.1	14.8	5534	344	247	10.9	133	0.719	0.0447	40.8
1997	560	0.039	17.5	13.4	17.5	15.0	5348	328	234	11.1	131	0.714	0.0438	40.0
1998	642	0.044	17.4	13.2	17.5	14.8	5243	313	227	11.2	130	0.736	0.0434	39.0
1999	755	0.050	17.2	13.0	17.5	14.7	5291	323	239	10.8	133	0.743	0.0455	39.0
2000	879	0.053	17.6	13.4	17.6	15.0	5395	312	246	10.7	134	0.797	0.0458	40.6
2001	1193	0.076	18.3	14.1	18.0	15.6	5264	291	248	10.4	135	0.872	0.0473	41.1
2002	2061	0.128	19.1	14.6	19.2	16.3	5036	276	252	10.0	138	0.920	0.0501	41.1
2003	1686	0.108	18.5	14.1	18.7	15.8	5391	293	267	10.1	140	0.933	0.0499	42.7
2004	1844	0.111	19.1	14.5	19.1	16.3	5341	284	274	9.8	142	0.982	0.0515	43.4

Percent of LARGE SUV:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	13.5	13.4	0.0	0.0	0.0	0.0	100.0	0.0
1976	0.0	22.8	14.6	0.0	0.0	0.0	0.0	100.0	0.0
1977	0.0	18.4	13.9	0.0	0.0	0.0	0.0	100.0	0.0
1978	0.0	26.9	19.3	0.0	0.0	0.0	0.0	100.0	0.0
1979	0.0	16.1	15.3	0.0	0.0	0.0	0.0	99.3	0.7
1980	0.0	30.0	17.8	78.6	0.0	0.0	0.0	94.1	5.9
1981	0.0	25.4	3.1	96.9	0.0	0.0	0.0	100.0	0.0
1982	0.0	28.7	1.1	98.9	0.0	0.0	0.0	46.8	53.2
1983	0.0	30.5	0.9	99.1	0.0	0.0	0.0	65.0	35.0
1984	0.0	30.2	1.0	99.0	0.0	0.0	0.0	80.7	19.3
1985	0.0	31.3	0.9	99.1	0.0	0.0	0.0	88.5	11.5
1986	0.0	32.8	0.6	99.4	0.0	0.0	0.0	91.7	8.3
1987	0.0	36.2	0.6	99.4	95.6	0.0	95.6	0.0	4.4
1988	0.0	41.0	0.5	99.5	96.9	0.0	96.9	0.0	3.1
1989	0.0	43.4	0.5	99.5	97.6	0.0	97.6	0.0	2.4
1990	0.0	42.8	0.3	99.7	97.8	0.0	97.8	0.0	2.2
1991	0.0	54.1	0.0	100.0	97.5	21.2	76.3	0.0	2.5
1992	0.0	67.5	0.6	99.4	100.0	11.2	88.8	0.0	0.0
1993	0.0	64.6	0.5	99.5	100.0	6.8	93.2	0.0	0.0
1994	0.0	67.0	0.4	99.6	100.0	10.3	89.7	0.0	0.0
1995	0.0	71.9	0.2	99.8	100.0	4.1	95.9	0.0	0.0
1996	0.0	75.7	0.0	100.0	99.9	99.9	0.0	0.0	0.1
1997	0.0	73.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1998	0.0	68.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1999	0.0	53.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2000	0.0	62.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2001	3.0	61.9	0.3	99.7	100.0	100.0	0.0	0.0	0.0
2002	1.9	64.5	0.2	99.8	100.0	100.0	0.0	0.0	0.0
2003	0.4	57.0	0.2	99.8	100.0	100.0	0.0	0.0	0.0
2004	2.6	67.7	0.1	99.9	100.0	100.0	0.0	0.0	0.0

# Appendix F

Table F-13

Characteristics of 1975 to 2004 SMALL PICKUP

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	160	0.016	22.5	17.3	22.2	19.2	2756	118	96	13.3	108	0.814	0.0347	26.6
1976	173	0.014	23.8	18.3	23.4	20.3	2775	119	98	13.2	109	0.828	0.0352	28.3
1977	241	0.017	25.5	19.9	24.6	21.8	2771	120	96	13.3	108	0.804	0.0347	30.3
1978	264	0.018	25.6	20.4	23.6	21.7	2799	119	92	13.8	107	0.774	0.0330	30.5
1979	358	0.026	22.8	17.9	21.6	19.4	2793	120	86	14.5	104	0.715	0.0308	27.5
1980	452	0.040	24.3	19.4	22.5	20.7	2790	122	88	14.2	105	0.723	0.0316	29.3
1981	369	0.035	28.2	22.5	26.0	23.9	2819	130	85	15.0	103	0.654	0.0301	34.4
1982	346	0.036	27.3	21.9	25.1	23.2	2899	137	89	14.8	104	0.651	0.0307	34.4
1983	312	0.030	26.9	21.6	24.8	22.9	2976	142	96	14.0	106	0.679	0.0323	34.5
1984	423	0.030	26.1	20.9	24.0	22.2	3035	142	97	14.1	106	0.684	0.0320	34.1
1985	497	0.034	26.7	21.4	24.5	22.7	3098	143	103	13.6	108	0.718	0.0333	35.4
1986	743	0.048	25.9	20.6	24.1	22.0	3141	145	105	13.5	109	0.726	0.0338	34.8
1987	441	0.030	26.0	20.6	24.3	22.1	3135	147	107	13.3	110	0.732	0.0345	34.8
1988	340	0.022	25.0	20.0	23.0	21.2	3200	148	113	13.0	111	0.757	0.0353	34.1
1989	354	0.025	23.9	19.1	22.1	20.3	3328	153	119	12.9	112	0.774	0.0359	34.0
1990	289	0.023	24.8	19.7	23.0	21.1	3293	153	129	12.0	116	0.844	0.0395	35.0
1991	309	0.025	25.0	19.8	23.3	21.3	3324	152	128	12.1	116	0.845	0.0389	35.6
1992	252	0.021	24.6	19.5	23.0	20.9	3321	152	126	12.3	115	0.828	0.0383	35.1
1993	263	0.020	26.3	20.8	24.6	22.3	3232	147	123	12.3	115	0.835	0.0383	36.3
1994	358	0.026	24.9	19.6	23.4	21.2	3355	151	125	12.4	114	0.829	0.0377	35.7
1995	298	0.020	24.4	19.3	22.9	20.8	3385	157	138	11.6	119	0.879	0.0411	35.3
1996	221	0.017	24.6	19.5	23.0	20.9	3362	159	147	11.0	122	0.926	0.0439	35.2
1997	131	0.009	24.9	19.8	23.2	21.2	3349	146	134	11.7	118	0.918	0.0405	35.5
1998	260	0.018	24.5	19.4	22.9	20.8	3462	160	151	11.0	123	0.947	0.0439	36.2
1999	213	0.014	23.2	18.4	21.6	19.8	3600	173	160	10.9	124	0.928	0.0445	35.6
2000	101	0.006	26.3	20.9	24.4	22.3	3307	148	143	11.1	121	0.966	0.0434	37.0
2001	81	0.005	26.5	21.1	24.5	22.5	3357	147	142	11.3	121	0.967	0.0426	37.8
2002	197	0.012	23.2	18.5	21.4	19.7	3735	177	164	11.0	124	0.933	0.0439	37.0
2003	195	0.012	23.2	18.4	21.8	19.8	3769	178	167	11.0	125	0.945	0.0443	37.5
2004	184	0.011	23.0	18.1	21.7	19.5	3844	179	172	10.9	126	0.969	0.0449	37.9

Percent of SMALL PICKUP:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	0.0	88.4	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	0.0	80.1	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	0.0	79.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	8.8	88.5	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	26.3	90.3	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1980	5.8	24.5	91.2	0.0	3.3	0.0	0.0	94.2	2.5 0.0
1981	9.1	31.6	94.8	0.1	2.5	0.0	0.0	75.6	22.0 0.0
1982	9.3	30.7	92.3	0.3	1.0	0.0	0.0	79.3	19.7 0.0
1983	9.8	30.9	90.4	1.6	0.4	0.0	0.0	93.6	6.0 0.0
1984	2.9	32.5	88.7	3.2	4.6	0.0	0.0	90.7	4.6 0.0
1985	0.0	31.7	85.0	6.9	13.8	0.0	0.0	84.3	1.9 0.0
1986	0.0	29.9	85.1	7.9	38.6	10.5	28.1	60.4	1.0 0.0
1987	0.0	29.6	81.3	9.9	48.2	9.0	39.2	51.8	0.0 0.0
1988	0.0	38.4	83.2	8.5	71.8	40.4	31.4	28.2	0.0 0.0
1989	0.0	38.0	79.9	14.1	86.0	51.1	34.9	14.0	0.0 0.0
1990	0.0	31.5	81.5	14.3	88.4	88.4	0.0	11.6	0.0 0.0
1991	0.0	34.7	79.6	14.9	100.0	100.0	0.0	0.0	0.0 0.0
1992	0.0	36.8	80.8	13.3	100.0	100.0	0.0	0.0	0.0 0.0
1993	0.0	27.1	81.8	12.2	100.0	100.0	0.0	0.0	0.0 0.0
1994	0.0	39.5	81.4	11.5	100.0	100.0	0.0	0.0	0.0 0.0
1995	0.0	37.8	73.2	20.0	100.0	100.0	0.0	0.0	0.0 30.1
1996	0.0	36.6	69.2	18.7	100.0	100.0	0.0	0.0	0.0 59.8
1997	0.0	20.8	79.6	20.4	100.0	100.0	0.0	0.0	0.0 0.0
1998	0.0	39.7	62.9	22.9	100.0	100.0	0.0	0.0	0.0 100.0
1999	0.0	45.3	46.4	42.4	100.0	100.0	0.0	0.0	0.0 92.1
2000	0.0	0.7	48.5	30.9	100.0	100.0	0.0	0.0	0.0 100.0
2001	0.0	0.0	49.2	24.6	100.0	100.0	0.0	0.0	0.0 100.0
2002	0.0	32.9	30.5	58.9	100.0	100.0	0.0	0.0	0.0 100.0
2003	0.0	39.4	28.7	59.9	100.0	100.0	0.0	0.0	0.0 88.5
2004	0.0	50.8	26.6	63.9	100.0	100.0	0.0	0.0	0.0 100.0

# Appendix F

Table F-14

Characteristics of 1975 to 2004 MID-SIZE PICKUP

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	56	0.005	21.1	16.8	19.6	17.9	3000	109	67	18.6	95	0.615	0.0223	26.9
1976	54	0.004	22.9	18.1	21.6	19.5	3000	109	65	18.9	94	0.596	0.0216	29.7
1977	66	0.005	29.5	23.2	28.0	25.1	3000	125	72	17.5	97	0.580	0.0240	37.9
1978	75	0.005	29.3	23.4	27.1	24.9	3000	124	72	17.6	96	0.581	0.0238	37.7
1979	101	0.007	25.9	20.6	24.1	22.0	2971	131	80	16.2	100	0.609	0.0268	33.3
1980	98	0.009	25.9	20.5	24.1	22.0	2944	133	82	15.7	101	0.620	0.0280	32.9
1981	130	0.012	26.4	20.8	24.8	22.5	2909	131	84	15.2	102	0.641	0.0288	33.2
1982	315	0.032	26.7	20.8	25.7	22.7	2936	152	98	13.8	108	0.648	0.0332	33.6
1983	621	0.060	26.5	20.7	25.4	22.6	3016	146	91	14.8	104	0.626	0.0301	34.3
1984	703	0.050	25.7	19.9	24.8	21.9	3093	148	92	14.9	104	0.626	0.0298	34.1
1985	616	0.043	25.7	19.9	25.1	21.9	3064	154	97	14.2	106	0.637	0.0317	33.9
1986	788	0.051	26.1	20.3	25.0	22.2	3081	147	102	14.0	108	0.687	0.0328	34.4
1987	1052	0.071	25.4	19.8	24.5	21.6	3163	159	106	13.8	109	0.672	0.0334	34.4
1988	1055	0.069	25.3	19.6	24.4	21.5	3205	165	110	13.6	110	0.670	0.0342	34.8
1989	887	0.061	24.8	19.3	23.8	21.1	3278	177	116	13.2	111	0.671	0.0353	34.9
1990	600	0.048	24.7	19.2	23.8	21.0	3338	175	120	13.0	112	0.697	0.0358	35.3
1991	873	0.069	24.6	19.0	24.0	21.0	3352	190	125	12.7	114	0.673	0.0372	35.4
1992	716	0.059	23.8	18.3	23.4	20.3	3493	195	131	12.7	115	0.685	0.0373	35.7
1993	743	0.056	23.7	18.2	23.3	20.2	3521	198	135	12.5	116	0.694	0.0383	35.8
1994	970	0.069	24.3	18.8	23.7	20.7	3593	193	142	12.3	118	0.745	0.0392	37.6
1995	700	0.046	24.7	19.1	24.3	21.1	3631	190	141	12.3	117	0.768	0.0386	38.8
1996	698	0.053	24.8	19.0	24.5	21.1	3668	187	140	12.4	117	0.775	0.0381	39.2
1997	690	0.048	24.2	18.6	23.8	20.6	3728	195	147	12.3	118	0.769	0.0389	39.1
1998	829	0.057	23.9	18.4	23.6	20.4	3713	191	146	12.2	118	0.780	0.0390	38.5
1999	763	0.050	22.5	17.3	22.2	19.2	3760	200	149	12.1	118	0.762	0.0393	36.6
2000	766	0.046	22.8	17.6	22.5	19.5	3740	192	148	12.2	119	0.788	0.0395	36.8
2001	542	0.035	21.8	16.8	21.5	18.6	3834	207	165	11.5	123	0.804	0.0427	36.0
2002	466	0.029	21.1	16.2	20.7	18.0	4019	226	180	11.0	127	0.807	0.0447	36.4
2003	555	0.036	22.6	17.4	22.3	19.3	3877	199	159	11.9	121	0.816	0.0407	37.7
2004	335	0.020	22.3	17.2	21.9	19.0	3989	210	182	10.9	127	0.872	0.0453	38.2

Percent of MID-SIZE PICKUP:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	0.0	68.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	0.0	85.5	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	0.0	91.4	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	0.0	86.9	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	0.0	80.2	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	0.0	83.7	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1981	0.0	0.0	88.1	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	4.1	68.7	28.8	0.0	0.0	0.0	97.9	2.1 0.0
1983	0.0	17.3	72.6	14.2	0.0	0.0	0.0	96.5	3.5 0.0
1984	0.0	19.6	71.1	16.8	0.0	0.0	0.0	98.0	2.0 0.0
1985	0.0	19.8	65.1	32.7	27.4	0.0	0.0	71.9	0.7 0.0
1986	0.0	16.8	73.0	23.7	57.4	30.7	26.7	42.4	0.2 0.0
1987	0.0	20.5	67.2	28.9	50.8	24.4	26.5	48.8	0.3 0.0
1988	0.0	19.8	65.0	32.6	71.9	32.7	39.2	28.1	0.0 0.0
1989	0.0	18.7	62.9	35.6	80.5	33.8	46.7	19.5	0.0 0.0
1990	0.0	16.7	61.6	38.4	87.2	59.3	27.9	12.8	0.0 0.0
1991	0.0	14.8	63.5	36.5	93.0	36.6	56.4	7.0	0.0 0.0
1992	0.0	15.5	59.9	40.1	91.7	59.0	32.7	8.3	0.0 0.0
1993	0.0	18.0	59.4	40.6	94.3	65.5	28.9	5.7	0.0 0.0
1994	0.0	18.1	57.3	42.7	97.9	85.1	12.8	2.1	0.0 0.0
1995	0.0	15.6	59.8	40.2	100.0	82.8	17.2	0.0	0.0 0.0
1996	0.0	14.3	52.9	47.1	100.0	100.0	0.0	0.0	0.0 0.1
1997	0.0	17.4	48.9	51.1	100.0	100.0	0.0	0.0	0.0 0.0
1998	0.0	19.9	44.1	55.9	100.0	100.0	0.0	0.0	0.0 0.0
1999	0.0	28.1	32.7	67.3	100.0	100.0	0.0	0.0	0.0 0.0
2000	0.0	28.8	27.5	72.5	100.0	100.0	0.0	0.0	0.0 0.6
2001	0.0	30.6	21.9	78.1	100.0	100.0	0.0	0.0	0.0 4.7
2002	0.0	41.8	15.8	84.2	100.0	100.0	0.0	0.0	0.0 11.5
2003	0.0	28.6	20.4	79.6	100.0	100.0	0.0	0.0	0.0 9.1
2004	0.0	31.6	21.1	78.9	100.0	100.0	0.0	0.0	0.0 22.5

# Appendix F

Table F-15

Characteristics of 1975 to 2004 LARGE PICKUP

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	1126	0.110	13.1	10.4	12.2	11.1	4241	343	151	13.3	115	0.438	0.0356	24.1
1976	1639	0.133	13.9	11.2	12.7	11.8	4301	344	146	13.8	113	0.423	0.0340	25.9
1977	1719	0.122	14.9	12.1	13.4	12.7	4318	347	156	13.1	116	0.449	0.0361	27.8
1978	1928	0.133	14.7	12.0	13.1	12.4	4326	339	154	13.2	116	0.454	0.0356	27.4
1979	1748	0.126	14.3	11.8	12.6	12.1	4486	330	149	14.1	113	0.452	0.0333	27.8
1980	887	0.078	17.2	13.7	15.8	14.6	4312	305	137	14.3	110	0.452	0.0317	32.0
1981	940	0.089	18.6	14.8	17.3	15.9	4124	293	132	14.2	110	0.452	0.0319	33.0
1982	780	0.080	18.6	14.8	17.3	15.9	4233	299	136	14.2	111	0.457	0.0321	34.1
1983	695	0.067	18.1	14.3	16.9	15.4	4270	302	138	14.2	111	0.461	0.0323	33.5
1984	917	0.065	17.8	14.0	16.7	15.1	4291	301	138	14.3	111	0.459	0.0321	32.9
1985	964	0.067	17.7	14.0	16.5	15.0	4292	305	149	13.4	114	0.490	0.0347	32.7
1986	1001	0.065	18.2	14.5	17.0	15.5	4283	298	146	13.6	113	0.495	0.0340	33.5
1987	654	0.044	17.7	14.0	16.6	15.1	4375	309	162	12.8	118	0.522	0.0368	33.2
1988	1064	0.070	18.0	14.1	17.3	15.4	4436	318	173	12.2	121	0.542	0.0388	34.2
1989	990	0.068	18.1	14.0	17.5	15.4	4444	318	175	12.2	121	0.547	0.0393	34.4
1990	945	0.075	18.0	13.9	17.7	15.4	4497	320	178	12.1	122	0.555	0.0396	34.8
1991	738	0.059	18.2	14.0	18.0	15.6	4476	315	178	12.1	122	0.562	0.0396	35.0
1992	872	0.072	18.3	14.0	18.2	15.7	4562	312	174	12.5	120	0.556	0.0381	35.9
1993	996	0.075	18.7	14.3	18.5	15.9	4552	303	180	12.1	122	0.600	0.0395	36.4
1994	1263	0.090	18.3	14.1	18.2	15.7	4613	316	189	11.7	124	0.600	0.0410	36.2
1995	1273	0.084	18.0	13.8	17.8	15.4	4672	316	188	11.9	123	0.598	0.0402	36.0
1996	1036	0.079	18.2	13.9	18.1	15.5	4718	315	210	11.1	129	0.671	0.0445	36.8
1997	1587	0.110	18.9	14.4	18.9	16.1	4801	303	222	10.6	132	0.737	0.0463	38.8
1998	1326	0.092	18.6	14.1	18.7	15.9	4799	308	225	10.5	133	0.735	0.0470	38.1
1999	1574	0.103	18.5	14.2	18.4	15.8	4957	313	238	10.3	135	0.762	0.0482	39.2
2000	1746	0.105	19.3	14.9	18.9	16.5	4663	289	230	10.2	136	0.800	0.0492	38.5
2001	1998	0.128	18.9	14.6	18.6	16.2	4792	289	232	10.3	135	0.810	0.0483	38.8
2002	1717	0.107	18.7	14.4	18.3	16.0	4982	294	246	10.1	137	0.836	0.0493	39.8
2003	1623	0.104	19.0	14.7	18.5	16.2	4956	294	254	9.9	140	0.861	0.0512	40.2
2004	2010	0.121	19.3	14.9	19.0	16.5	5189	302	265	9.9	141	0.878	0.0511	42.7

Percent of LARGE PICKUP:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	16.1	33.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	23.8	32.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	25.2	27.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	30.5	28.5	0.0	0.0	0.0	0.0	98.6	1.4	0.0
1979	0.0	10.5	27.3	1.7	0.0	0.0	0.0	96.9	3.1	0.0
1980	0.0	21.6	39.5	35.5	0.0	0.0	0.0	94.5	5.5	0.0
1981	0.0	13.4	38.9	42.1	0.0	0.0	0.0	97.7	2.3	0.0
1982	0.0	17.3	30.9	42.8	0.0	0.0	0.0	90.6	9.4	0.0
1983	0.0	22.3	26.4	52.2	0.0	0.0	0.0	95.5	4.5	0.0
1984	0.0	25.1	26.7	50.9	0.0	0.0	0.0	97.6	2.4	0.0
1985	0.0	25.8	25.7	48.1	9.7	0.0	0.7	89.1	1.2	0.0
1986	0.0	28.3	27.0	52.5	24.3	21.7	2.6	75.0	0.7	0.0
1987	0.0	30.8	29.1	41.6	79.1	43.1	36.0	20.4	0.4	0.0
1988	0.0	33.8	26.8	54.5	99.1	36.5	62.6	0.5	0.5	0.0
1989	0.0	34.8	33.2	56.6	99.6	38.8	60.8	0.0	0.4	0.0
1990	0.0	33.9	24.9	68.0	99.6	37.0	62.6	0.0	0.4	0.0
1991	0.0	32.5	27.3	71.3	99.6	39.5	60.1	0.0	0.4	0.0
1992	0.0	32.1	26.8	73.1	99.7	45.0	54.7	0.0	0.3	0.0
1993	0.0	35.0	22.4	77.6	100.0	47.9	52.1	0.0	0.0	0.0
1994	0.0	36.9	15.9	84.1	100.0	47.0	53.0	0.0	0.0	0.1
1995	0.0	41.5	20.7	79.3	100.0	55.1	44.9	0.0	0.0	2.8
1996	0.0	37.9	15.0	85.0	99.7	99.7	0.0	0.0	0.3	3.7
1997	0.0	43.3	10.5	89.5	99.9	99.9	0.0	0.0	0.1	1.9
1998	0.0	43.2	9.8	90.2	99.9	99.9	0.0	0.0	0.1	0.8
1999	0.0	53.5	6.3	93.7	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	44.8	10.0	90.0	100.0	100.0	0.0	0.0	0.0	13.0
2001	0.0	43.0	7.2	92.8	100.0	100.0	0.0	0.0	0.0	10.7
2002	0.0	43.6	5.4	94.6	100.0	100.0	0.0	0.0	0.0	10.1
2003	0.0	43.6	4.6	95.4	100.0	100.0	0.0	0.0	0.0	7.0
2004	0.0	41.1	4.0	96.0	100.0	100.0	0.0	0.0	0.0	15.4

# Appendix G

Table G-1 Characteristics of 1975 to 2004 Two-Seater

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	244	0.024	19.7	15.1	19.5	16.8	3015		173	125	12.6	117	0.764	0.0405	25.2		
1976	203	0.016	19.4	14.9	19.2	16.5	3032		187	136	12.1	120	0.752	0.0428	25.1		
1977	221	0.016	20.0	15.5	19.5	17.1	3062	50.0	183	134	12.4	119	0.754	0.0420	26.2	880	1308
1978	191	0.013	19.4	15.0	19.1	16.6	3079	50.0	187	143	11.8	122	0.794	0.0445	25.5	855	1276
1979	256	0.018	20.1	15.3	20.0	17.1	3026	50.0	180	128	12.2	118	0.734	0.0409	26.1	887	1305
1980	200	0.018	20.6	15.6	20.8	17.6	2954	50.0	180	121	12.3	116	0.702	0.0399	26.3	904	1315
1981	162	0.015	21.9	17.1	21.1	18.7	3005	50.0	202	142	10.6	124	0.758	0.0468	28.3	959	1415
1982	263	0.027	25.7	19.7	25.5	21.9	2726	50.0	146	106	13.0	112	0.734	0.0376	30.5	1141	1523
1983	137	0.013	23.9	18.4	23.4	20.3	2756	50.0	146	115	11.8	116	0.778	0.0410	28.3	1038	1416
1984	348	0.025	26.7	20.3	27.0	22.8	2886	50.0	174	121	12.1	117	0.717	0.0409	33.9	1215	1694
1985	335	0.023	26.9	20.5	26.9	23.0	2826	50.0	158	123	11.6	118	0.805	0.0424	33.4	1231	1669
1986	303	0.020	28.1	21.4	28.3	24.0	2915	50.0	166	130	11.7	119	0.818	0.0430	35.8	1283	1790
1987	282	0.019	27.5	20.8	27.9	23.5	2920	50.0	167	134	11.5	121	0.830	0.0441	35.4	1270	1771
1988	203	0.013	27.4	20.7	27.8	23.4	2940	50.0	170	138	11.2	122	0.845	0.0454	35.7	1284	1785
1989	113	0.008	26.9	20.3	27.3	23.0	3030	50.0	198	160	10.2	130	0.891	0.0507	36.2	1286	1810
1990	177	0.014	27.7	21.1	27.6	23.6	2979	50.0	164	160	10.3	130	1.019	0.0510	35.9	1265	1794
1991	178	0.014	29.0	22.2	28.6	24.7	2890	50.0	149	150	10.8	127	1.040	0.0489	36.6	1340	1830
1992	81	0.007	26.7	20.3	26.9	22.8	3022	50.0	187	183	10.0	137	1.018	0.0563	34.7	1223	1735
1993	118	0.009	28.4	21.6	28.6	24.2	2975	50.0	169	178	9.6	137	1.138	0.0570	37.0	1297	1849
1994	84	0.006	26.0	19.7	26.5	22.2	3134	50.0	207	197	8.8	143	1.072	0.0610	35.5	1170	1774
1995	79	0.005	26.3	19.8	27.0	22.5	3176	50.0	204	199	8.9	142	1.076	0.0603	36.3	1187	1815
1996	65	0.005	26.0	19.4	27.0	22.2	3168	50.0	216	205	8.6	145	1.049	0.0630	35.3	1142	1767
1997	72	0.005	26.7	20.0	27.4	22.8	3056	50.0	178	198	8.7	144	1.157	0.0625	35.3	1180	1764
1998	78	0.005	24.4	18.2	25.3	20.8	3458	50.0	243	255	7.7	160	1.108	0.0730	36.5	1063	1824
1999	118	0.008	25.8	19.4	26.4	22.1	3179	50.0	208	225	7.9	153	1.152	0.0693	35.2	1129	1761
2000	122	0.007	25.9	19.5	26.6	22.1	3124	50.0	208	232	7.7	156	1.192	0.0722	35.6	1192	1782
2001	143	0.009	26.2	19.7	26.9	22.4	3207	50.0	200	239	7.7	158	1.292	0.0731	36.6	1166	1831
2002	132	0.008	24.9	18.6	25.8	21.3	3397	50.0	224	251	7.6	159	1.212	0.0731	36.6	1100	1829
2003	151	0.010	25.0	18.7	25.9	21.4	3399	50.0	229	268	7.2	165	1.238	0.0776	36.7	1096	1834
2004	186	0.011	24.9	18.6	25.9	21.3	3503	50.0	228	262	7.6	161	1.184	0.0739	37.6	1087	1879

Percent of Two-Seater:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	74.6	0.0	42.4	42.4	0.0	57.6	0.0	0.0
1976	0.0	0.0	70.5	0.0	37.1	37.1	0.0	62.9	0.0	0.0
1977	0.0	0.0	70.5	0.0	40.2	40.2	0.0	59.8	0.0	0.0
1978	0.0	0.0	71.8	0.0	46.9	46.9	0.0	53.1	0.0	0.0
1979	0.0	0.0	72.8	0.0	31.5	31.5	0.0	68.5	0.0	0.0
1980	0.0	0.0	74.0	13.6	34.4	34.4	0.0	65.6	0.0	0.0
1981	0.0	0.0	61.3	20.1	55.4	55.4	0.0	44.6	0.0	0.0
1982	47.8	0.0	69.2	9.5	32.8	23.3	9.5	67.2	0.0	0.0
1983	17.1	0.0	81.0	4.5	40.3	40.3	0.0	59.7	0.0	0.0
1984	17.9	0.0	60.4	33.7	73.6	20.5	53.1	26.4	0.0	0.0
1985	25.0	0.0	67.4	26.3	64.9	53.3	11.6	35.1	0.0	0.0
1986	29.8	0.0	62.4	30.7	81.7	70.0	11.7	18.3	0.0	11.5
1987	32.7	0.0	64.0	28.5	85.9	71.3	14.6	14.1	0.0	7.4
1988	41.9	0.0	62.1	27.4	100.0	73.9	26.1	0.0	0.0	23.8
1989	32.6	16.5	51.5	36.6	100.0	85.8	14.2	0.0	0.0	38.5
1990	31.3	0.0	66.9	27.2	100.0	88.5	11.5	0.0	0.0	67.0
1991	34.9	0.0	68.5	21.1	100.0	81.4	18.6	0.0	0.0	66.9
1992	16.1	0.1	55.3	26.3	100.0	86.3	13.7	0.0	0.0	52.7
1993	42.3	0.0	59.8	35.3	100.0	94.4	5.6	0.0	0.0	47.9
1994	24.1	0.1	57.5	35.6	100.0	100.0	0.0	0.0	0.0	64.8
1995	23.5	0.1	57.9	31.4	100.0	100.0	0.0	0.0	0.0	65.4
1996	4.7	0.0	55.6	40.8	100.0	100.0	0.0	0.0	0.0	64.3
1997	10.8	0.1	64.0	34.3	100.0	100.0	0.0	0.0	0.0	84.3
1998	0.0	0.1	36.6	61.2	100.0	100.0	0.0	0.0	0.0	61.1
1999	28.5	0.1	54.1	42.6	100.0	100.0	0.0	0.0	0.0	65.2
2000	4.6	0.0	63.0	34.6	100.0	100.0	0.0	0.0	0.0	72.7
2001	5.0	7.1	60.9	36.1	100.0	100.0	0.0	0.0	0.0	56.8
2002	3.0	2.9	47.3	49.8	100.0	100.0	0.0	0.0	0.0	63.3
2003	1.7	1.0	51.5	48.1	100.0	100.0	0.0	0.0	0.0	59.7
2004	2.1	1.6	43.8	55.8	100.0	100.0	0.0	0.0	0.0	58.7

# Appendix G

Table G-2 Characteristics of 1975 to 2004 Mini-compact

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	941	0.092	23.0	17.6	22.8	19.6	2721		128	82	15.2	102	0.669	0.0297	27.4		
1976	913	0.074	26.0	20.2	25.2	22.2	2688		124	80	15.1	102	0.673	0.0296	30.1		
1977	915	0.065	27.9	21.7	26.8	23.8	2544	78.8	116	83	14.0	105	0.756	0.0326	30.7	1957	2420
1978	901	0.062	27.4	21.7	25.6	23.3	2583	79.1	120	83	14.1	105	0.730	0.0321	30.6	1920	2422
1979	436	0.031	27.6	21.7	26.3	23.5	2450	79.7	113	77	14.4	103	0.689	0.0312	29.0	1906	2315
1980	383	0.034	28.1	22.1	26.8	24.0	2458	82.8	116	78	14.4	103	0.674	0.0313	29.6	2031	2449
1981	227	0.022	34.3	27.6	31.3	29.1	2164	82.6	92	67	14.5	101	0.723	0.0307	31.9	2472	2639
1982	178	0.018	35.5	28.5	32.3	30.1	2193	82.7	95	70	14.6	102	0.727	0.0310	33.7	2604	2792
1983	156	0.015	35.7	28.4	33.3	30.4	2273	82.0	99	77	14.2	104	0.753	0.0326	35.3	2630	2901
1984	42	0.003	25.6	19.5	25.7	21.8	2855	75.9	151	141	10.5	125	0.927	0.0480	31.6	1721	2400
1985	73	0.005	36.0	28.0	34.9	30.7	2300	79.2	114	95	13.1	111	0.818	0.0378	37.6	2896	2994
1986	176	0.011	30.7	23.5	30.5	26.2	2407	80.5	113	104	12.8	114	0.881	0.0402	33.6	2471	2706
1987	71	0.005	30.7	23.6	30.2	26.2	2636	77.2	128	130	11.3	123	0.985	0.0467	36.1	2317	2812
1988	43	0.003	31.1	24.1	30.2	26.5	2619	77.9	128	129	11.7	122	0.954	0.0460	36.9	2448	2904
1989	28	0.002	26.9	20.7	26.3	22.9	2866	77.2	146	148	10.7	128	0.985	0.0501	33.5	1838	2601
1990	76	0.006	26.3	20.1	26.1	22.4	3019	80.7	148	145	10.5	125	0.969	0.0474	34.0	1831	2745
1991	95	0.008	28.6	22.1	28.0	24.4	2912	75.5	127	137	10.8	123	1.075	0.0463	35.7	1863	2700
1992	118	0.010	31.4	24.2	30.6	26.7	2691	81.0	110	118	11.2	118	1.072	0.0434	36.0	2203	2917
1993	74	0.006	30.0	23.2	29.3	25.6	2818	79.5	118	130	10.9	121	1.088	0.0452	36.1	2078	2869
1994	39	0.003	28.1	21.3	28.4	24.0	3146	81.0	132	163	10.3	129	1.201	0.0498	37.6	2000	3055
1995	56	0.004	27.3	20.8	27.4	23.3	3218	79.9	147	166	9.9	131	1.122	0.0510	37.6	1889	3011
1996	43	0.003	26.9	20.3	27.3	23.0	3270	76.8	157	179	9.8	134	1.127	0.0535	37.9	1835	2931
1997	43	0.003	26.6	20.0	27.2	22.7	3338	76.6	154	185	9.7	136	1.194	0.0544	38.3	1784	2950
1998	37	0.003	25.8	19.3	26.8	22.1	3522	78.9	169	195	9.6	137	1.146	0.0544	39.0	1759	3084
1999	51	0.003	25.2	18.7	26.6	21.6	3602	79.3	181	220	9.0	145	1.199	0.0607	39.1	1729	3111
2000	40	0.002	24.2	18.1	25.4	20.7	3729	79.6	192	244	8.3	152	1.300	0.0653	38.9	1672	3106
2001	80	0.005	24.9	18.6	26.0	21.3	3711	80.5	178	228	8.8	147	1.293	0.0614	39.8	1731	3210
2002	96	0.006	25.6	19.2	26.2	21.9	3649	81.5	187	238	8.5	150	1.301	0.0644	40.2	1829	3280
2003	149	0.010	27.4	20.6	28.1	23.4	3507	82.1	156	195	10.0	137	1.246	0.0545	41.4	1974	3403
2004	137	0.008	27.4	20.6	28.3	23.5	3478	81.8	151	194	9.9	137	1.284	0.0549	41.1	1967	3366

Percent of Mini-compact:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	19.6	0.0	67.7	0.0	11.5	11.5	0.0	88.5	0.0	0.0
1976	22.1	0.0	63.5	0.0	4.5	4.5	0.0	95.5	0.0	0.0
1977	25.4	0.0	70.6	0.0	1.9	1.9	0.0	98.1	0.0	0.0
1978	22.3	0.0	63.0	0.0	1.5	1.5	0.0	98.5	0.0	0.0
1979	44.8	0.0	73.4	0.0	3.4	3.4	0.0	96.6	0.0	0.0
1980	47.2	0.0	60.0	0.0	1.6	1.6	0.0	98.4	0.0	0.0
1981	83.2	0.0	81.2	0.0	1.0	1.0	0.0	99.0	0.0	0.0
1982	80.4	0.0	80.8	0.0	6.4	6.4	0.0	93.6	0.0	0.0
1983	81.8	0.0	80.9	0.2	20.6	20.6	0.0	79.4	0.0	0.0
1984	30.6	0.0	84.3	0.2	92.6	92.6	0.0	7.4	0.0	0.0
1985	67.7	0.0	86.1	0.1	46.9	46.9	0.0	53.1	0.0	0.0
1986	54.6	0.0	82.7	5.1	52.2	52.2	0.0	47.8	0.0	5.8
1987	54.9	0.0	81.9	3.9	85.9	85.9	0.0	14.1	0.0	18.6
1988	62.4	0.0	76.6	8.3	77.0	77.0	0.0	23.0	0.0	23.5
1989	62.4	3.5	65.3	16.1	100.0	100.0	0.0	0.0	0.0	36.9
1990	11.4	0.0	61.6	32.1	100.0	100.0	0.0	0.0	0.0	3.2
1991	50.9	0.0	59.8	36.3	100.0	100.0	0.0	0.0	0.0	90.6
1992	71.5	0.0	55.3	41.3	100.0	100.0	0.0	0.0	0.0	91.8
1993	64.9	0.0	52.6	45.4	100.0	100.0	0.0	0.0	0.0	81.2
1994	44.5	0.0	43.2	51.4	100.0	100.0	0.0	0.0	0.0	92.8
1995	17.3	0.0	40.8	50.6	100.0	100.0	0.0	0.0	0.0	94.7
1996	37.7	6.7	48.0	50.2	100.0	100.0	0.0	0.0	0.0	80.8
1997	48.1	4.7	47.8	50.2	100.0	100.0	0.0	0.0	0.0	82.3
1998	38.5	1.1	34.4	64.6	100.0	100.0	0.0	0.0	0.0	91.1
1999	25.7	3.2	38.4	55.9	100.0	100.0	0.0	0.0	0.0	88.2
2000	8.3	13.5	46.9	48.4	100.0	100.0	0.0	0.0	0.0	81.9
2001	33.7	16.0	37.2	59.2	100.0	100.0	0.0	0.0	0.0	81.8
2002	29.0	10.7	46.9	46.6	100.0	100.0	0.0	0.0	0.0	94.0
2003	59.2	6.0	42.7	52.8	100.0	100.0	0.0	0.0	0.0	75.0
2004	60.6	7.9	37.8	56.2	100.0	100.0	0.0	0.0	0.0	72.7

# Appendix G

Table G-3 Characteristics of 1975 to 2004 Sub-compact

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1011	0.099	19.2	15.0	18.6	16.4	3242		206	107	14.2	108	0.585	0.0328	26.8		
1976	1368	0.111	22.2	17.4	21.1	18.9	3033		181	97	14.7	106	0.607	0.0315	28.8		
1977	1577	0.112	23.9	18.8	22.6	20.3	2966	90.7	174	98	14.2	107	0.633	0.0324	30.7	1983	2783
1978	2056	0.142	24.6	19.4	23.4	21.0	2842	89.7	159	93	14.4	106	0.649	0.0321	30.4	2032	2726
1979	3044	0.219	24.1	19.0	22.8	20.5	2847	90.4	155	94	14.2	106	0.659	0.0322	29.6	1955	2674
1980	3552	0.314	27.1	21.3	25.7	23.1	2640	89.9	128	82	14.7	103	0.669	0.0307	30.8	2148	2768
1981	2712	0.257	29.3	23.3	27.3	24.9	2604	90.3	124	81	14.7	103	0.676	0.0308	32.9	2334	2971
1982	2329	0.239	29.1	22.8	27.7	24.8	2657	91.8	133	86	14.5	105	0.666	0.0316	33.6	2377	3077
1983	1968	0.191	30.0	23.4	29.0	25.6	2687	93.3	136	90	14.0	106	0.693	0.0329	34.9	2505	3262
1984	2545	0.182	29.6	22.9	28.8	25.2	2737	93.3	140	97	13.5	108	0.722	0.0347	35.0	2457	3265
1985	2181	0.151	30.1	23.3	29.2	25.6	2734	93.9	136	100	13.2	110	0.760	0.0357	35.4	2506	3325
1986	2376	0.155	30.6	23.7	29.6	26.0	2764	94.7	136	100	13.4	109	0.765	0.0353	36.4	2571	3449
1987	2088	0.140	31.1	24.2	30.0	26.5	2728	92.7	128	99	13.7	109	0.795	0.0349	36.5	2551	3377
1988	2143	0.140	32.0	25.0	30.5	27.2	2668	93.2	122	99	13.5	110	0.823	0.0357	36.7	2652	3421
1989	1950	0.135	31.2	24.2	30.1	26.6	2748	93.1	129	104	13.0	111	0.852	0.0369	36.9	2592	3436
1990	1974	0.157	31.5	24.7	30.1	26.9	2762	94.5	117	108	12.5	113	0.962	0.0384	37.4	2615	3533
1991	2303	0.183	31.5	24.3	30.7	26.8	2779	94.8	124	111	12.3	114	0.938	0.0392	37.6	2630	3564
1992	2021	0.166	31.8	24.5	31.2	27.2	2806	93.8	122	117	12.0	116	0.987	0.0407	38.6	2651	3616
1993	1872	0.142	32.0	24.6	31.5	27.3	2797	94.4	124	120	11.8	117	0.977	0.0417	38.6	2677	3643
1994	1995	0.143	31.6	24.0	31.6	26.9	2879	94.4	134	125	11.7	118	0.973	0.0422	39.2	2645	3701
1995	1623	0.107	31.5	23.9	31.7	26.9	2949	93.6	141	134	11.3	121	1.015	0.0442	40.1	2640	3760
1996	1108	0.084	32.9	25.0	33.0	28.1	2875	94.9	136	131	11.2	121	1.024	0.0445	40.7	2779	3865
1997	1488	0.103	32.5	25.0	32.2	27.8	2909	95.5	126	128	11.5	119	1.058	0.0431	40.6	2726	3885
1998	1602	0.111	31.6	24.0	31.8	27.0	2984	96.4	138	135	11.1	122	1.022	0.0447	40.6	2666	3911
1999	1382	0.091	31.3	23.8	31.4	26.7	2973	96.4	137	136	11.1	122	1.024	0.0450	40.0	2634	3854
2000	1492	0.090	30.7	23.4	30.7	26.2	3026	96.5	145	144	10.7	124	1.040	0.0469	39.9	2583	3850
2001	644	0.041	28.4	21.4	29.0	24.2	3226	93.5	173	173	9.8	133	1.035	0.0527	39.4	2326	3684
2002	573	0.036	28.2	21.2	29.1	24.1	3292	94.3	183	186	9.4	137	1.074	0.0556	40.0	2339	3772
2003	442	0.028	27.6	20.8	28.1	23.6	3379	93.7	174	187	9.6	136	1.117	0.0548	40.2	2269	3767
2004	684	0.041	27.4	20.8	27.7	23.4	3416	96.9	170	183	9.9	134	1.121	0.0530	40.3	2329	3920

Percent of Sub-compact:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	17.6	0.0	40.9	0.0	8.9	8.9	0.0	91.1	0.0	0.0
1976	13.1	0.0	42.8	0.0	3.1	3.1	0.0	96.9	0.0	0.0
1977	19.4	0.0	46.5	0.0	12.5	12.5	0.0	86.3	1.2	0.0
1978	22.3	0.0	54.4	0.0	11.7	11.7	0.0	86.6	1.8	0.0
1979	25.9	0.0	51.5	0.0	7.3	7.3	0.0	91.3	1.5	0.0
1980	35.3	0.4	58.2	3.5	10.9	10.9	0.0	85.6	3.4	0.0
1981	36.0	0.3	58.9	8.5	12.1	12.1	0.0	82.4	5.5	0.0
1982	39.8	0.2	55.1	23.6	18.1	14.8	3.2	77.8	4.1	0.0
1983	53.4	0.2	55.8	32.0	24.2	21.5	2.7	74.6	1.2	0.0
1984	49.8	0.5	51.5	35.1	31.9	28.9	3.0	66.3	1.7	0.0
1985	58.7	0.3	49.4	34.1	33.9	28.8	5.1	65.9	0.2	0.0
1986	64.5	1.1	50.3	34.0	41.4	36.5	4.9	58.5	0.1	3.7
1987	69.1	0.5	51.3	39.4	47.0	40.3	6.8	52.9	0.1	13.4
1988	77.7	1.2	53.6	40.0	50.9	35.7	15.2	49.1	0.0	24.6
1989	72.3	1.1	46.5	45.3	65.1	44.5	20.6	34.9	0.0	29.3
1990	87.9	0.5	44.9	51.1	95.5	71.5	24.0	4.5	0.0	48.3
1991	84.3	1.4	39.1	56.2	99.8	59.6	40.3	0.2	0.0	44.3
1992	84.2	1.6	38.0	56.4	100.0	84.5	15.5	0.0	0.0	50.4
1993	84.6	1.7	42.6	51.9	100.0	91.7	8.3	0.0	0.0	44.6
1994	81.8	0.2	37.7	58.0	100.0	93.6	6.4	0.0	0.0	46.8
1995	72.1	1.4	40.4	55.4	100.0	95.0	5.0	0.0	0.0	62.0
1996	75.8	1.1	41.4	52.1	100.0	92.2	7.8	0.0	0.0	64.4
1997	83.3	0.6	31.4	64.9	100.0	95.5	4.5	0.0	0.0	77.5
1998	81.2	0.6	30.1	68.3	99.8	99.1	0.7	0.0	0.2	58.4
1999	83.2	0.5	27.5	71.0	99.8	99.2	0.6	0.0	0.2	49.5
2000	76.7	0.5	26.2	71.9	99.5	99.2	0.3	0.0	0.5	49.8
2001	57.7	0.8	32.1	64.4	98.9	98.9	0.0	0.0	1.1	47.5
2002	50.9	5.9	37.3	62.6	98.6	98.6	0.0	0.0	1.4	44.1
2003	59.0	4.2	35.2	63.4	97.5	97.5	0.0	0.0	2.5	52.2
2004	50.2	9.8	39.0	51.0	99.6	99.6	0.0	0.0	0.4	51.1

# Appendix G

Table G-4 Characteristics of 1975 to 2004 Compact Car

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1893	0.185	16.2	12.9	15.0	13.8	3958		287	129	14.6	110	0.454	0.0322	27.6		
1976	2557	0.207	17.5	13.9	16.4	14.9	4025		289	125	15.2	108	0.434	0.0307	30.2		
1977	2767	0.196	17.9	14.2	16.7	15.2	4128	107.3	291	131	14.6	110	0.452	0.0315	31.6	1655	3391
1978	1482	0.103	20.2	15.8	19.3	17.2	3552	105.1	236	113	14.5	108	0.506	0.0317	30.6	1842	3221
1979	668	0.048	19.5	15.4	18.3	16.6	3624	105.3	246	117	14.4	109	0.495	0.0320	30.4	1783	3201
1980	690	0.061	22.4	17.4	21.6	19.1	3184	106.2	186	102	14.4	107	0.577	0.0323	30.7	2078	3265
1981	976	0.092	26.7	20.7	26.1	22.8	2825	104.3	142	91	14.2	106	0.671	0.0324	32.4	2433	3377
1982	1268	0.130	29.0	22.2	28.8	24.8	2794	102.9	128	86	14.6	104	0.695	0.0309	34.8	2591	3579
1983	1456	0.141	28.8	22.2	28.2	24.5	2844	103.2	141	91	14.4	105	0.677	0.0317	35.2	2602	3633
1984	2731	0.195	29.7	23.0	28.8	25.3	2798	103.1	136	90	14.3	106	0.687	0.0321	35.7	2672	3682
1985	2929	0.203	29.8	23.1	29.0	25.5	2804	103.1	138	98	13.5	109	0.727	0.0347	36.0	2690	3714
1986	3348	0.218	29.8	23.1	29.0	25.4	2819	103.2	137	98	13.5	109	0.735	0.0346	36.1	2680	3728
1987	4012	0.270	29.7	23.0	29.1	25.4	2836	102.8	135	100	13.3	109	0.759	0.0351	36.2	2652	3718
1988	4317	0.282	29.9	23.1	29.3	25.5	2889	103.6	136	106	13.0	111	0.794	0.0365	37.0	2684	3838
1989	3585	0.248	29.9	23.1	29.3	25.5	2886	102.8	130	108	12.7	112	0.837	0.0372	36.9	2653	3797
1990	2771	0.220	29.0	22.2	28.7	24.7	2984	103.3	138	118	12.3	115	0.856	0.0393	37.1	2583	3827
1991	2455	0.195	29.0	22.2	28.6	24.7	2984	104.5	136	120	12.1	116	0.887	0.0399	37.2	2628	3885
1992	2221	0.182	28.6	21.8	28.6	24.4	3034	104.3	143	127	11.8	118	0.892	0.0416	37.1	2575	3874
1993	2473	0.187	29.6	22.6	29.6	25.3	2982	104.1	139	121	12.0	116	0.886	0.0404	37.8	2664	3939
1994	2602	0.186	29.8	22.7	29.8	25.4	3023	103.9	138	124	11.9	117	0.912	0.0408	38.6	2674	4008
1995	3432	0.227	30.6	23.2	30.8	26.1	2998	103.9	134	132	11.2	121	0.992	0.0438	39.2	2744	4078
1996	2981	0.227	30.3	22.9	30.7	25.9	3007	103.1	134	133	11.1	121	0.999	0.0440	39.0	2698	4026
1997	2845	0.197	30.3	22.9	30.8	25.9	3004	102.6	135	133	11.1	121	0.988	0.0442	39.0	2686	4002
1998	2121	0.147	30.9	23.3	31.5	26.4	3010	102.7	131	134	11.0	121	1.028	0.0444	39.9	2751	4097
1999	2368	0.155	30.1	22.7	30.7	25.7	3135	103.2	139	141	10.9	122	1.028	0.0448	40.4	2694	4171
2000	2612	0.158	30.5	23.1	30.9	26.0	3097	103.6	132	138	11.1	121	1.049	0.0441	40.5	2741	4195
2001	3197	0.205	31.7	24.1	31.8	27.1	3055	103.0	130	139	11.0	122	1.074	0.0449	41.7	2850	4300
2002	2998	0.186	31.8	24.2	31.8	27.1	3065	102.5	128	140	10.9	122	1.091	0.0451	42.0	2842	4297
2003	2814	0.180	32.0	24.4	32.0	27.3	3104	104.0	132	147	10.7	125	1.123	0.0469	42.9	2912	4462
2004	2800	0.168	31.8	24.1	32.1	27.1	3116	103.6	137	152	10.4	126	1.120	0.0482	42.7	2869	4417

Percent of Compact Car:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	2.4	0.0	8.1	0.0	4.4	4.4	0.0	94.6	1.0	0.0
1976	2.5	0.0	6.3	0.0	3.6	3.6	0.0	95.4	0.9	0.0
1977	2.3	0.0	4.4	0.0	3.8	3.8	0.0	95.1	1.1	0.0
1978	17.8	0.0	10.0	16.3	9.1	9.1	0.0	88.8	2.2	0.0
1979	13.6	0.0	9.0	0.0	14.8	14.8	0.0	77.2	8.0	0.0
1980	56.8	5.8	14.5	6.7	10.8	10.8	0.0	80.9	8.4	0.0
1981	81.4	2.1	32.9	5.8	8.0	8.0	0.0	86.0	6.0	0.0
1982	84.8	1.9	34.8	39.7	21.5	8.3	13.1	73.2	5.3	0.0
1983	74.7	2.2	32.3	42.4	50.6	13.2	37.4	45.1	4.4	0.0
1984	82.0	0.8	28.4	41.0	54.0	21.6	32.4	43.1	2.8	0.0
1985	85.3	0.2	28.3	42.8	70.8	24.0	46.9	26.7	2.4	0.0
1986	86.6	0.2	28.5	50.0	76.4	33.0	43.4	22.9	0.7	1.0
1987	90.5	0.4	29.5	49.3	74.6	32.4	42.2	25.1	0.3	5.3
1988	91.2	0.2	25.6	59.0	91.4	48.7	42.7	8.6	0.0	10.9
1989	95.8	0.5	26.0	56.2	94.9	54.9	40.0	5.0	0.1	15.8
1990	95.5	0.8	19.3	63.6	99.9	66.7	33.2	0.0	0.1	34.5
1991	95.0	1.6	21.7	65.3	99.6	82.3	17.3	0.0	0.4	38.8
1992	96.1	0.9	19.2	66.2	99.8	89.0	10.8	0.0	0.2	32.3
1993	97.5	0.5	18.3	69.9	100.0	87.7	12.3	0.0	0.0	40.3
1994	96.2	0.4	18.8	72.8	100.0	91.7	8.3	0.0	0.0	50.7
1995	95.4	0.8	19.5	78.7	99.8	99.8	0.0	0.0	0.2	66.2
1996	97.3	0.9	17.2	81.9	100.0	100.0	0.0	0.0	0.0	65.9
1997	95.5	1.1	16.7	83.3	100.0	100.0	0.0	0.0	0.0	61.7
1998	93.8	1.8	15.3	84.7	99.6	99.6	0.0	0.0	0.4	74.3
1999	93.5	1.7	13.1	86.4	99.7	99.7	0.0	0.0	0.3	69.0
2000	92.0	1.4	15.3	83.2	99.5	99.5	0.0	0.0	0.5	74.2
2001	92.0	2.2	15.8	82.8	99.5	99.5	0.0	0.0	0.5	70.0
2002	90.2	3.5	16.5	82.3	99.2	99.2	0.0	0.0	0.8	68.2
2003	86.4	3.9	14.6	83.5	99.3	99.3	0.0	0.0	0.7	80.0
2004	87.2	4.7	16.6	81.3	99.5	99.5	0.0	0.0	0.5	82.8



# Appendix G

Table G-5 Characteristics of 1975 to 2004 Midsize Car

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1631	0.160	13.6	10.5	13.1	11.6	4630		353	158	13.9	115	0.447	0.0340	27.2		
1976	1964	0.159	15.7	12.2	15.1	13.4	4558		343	156	13.8	114	0.454	0.0340	30.7		
1977	2226	0.158	16.4	12.9	15.7	14.0	4473	112.9	332	151	13.9	114	0.454	0.0336	31.6	1601	3565
1978	3339	0.231	18.6	14.4	17.9	15.8	3820	113.0	292	135	13.4	113	0.464	0.0353	30.3	1823	3422
1979	3211	0.231	19.1	15.0	18.1	16.3	3710	113.1	272	128	13.6	112	0.474	0.0344	30.3	1870	3425
1980	2987	0.264	21.6	16.8	21.0	18.4	3362	113.2	228	113	13.8	109	0.512	0.0336	31.1	2113	3523
1981	2902	0.275	22.9	17.8	22.3	19.6	3346	113.9	220	107	14.2	108	0.509	0.0322	32.9	2255	3746
1982	2136	0.219	24.0	18.4	23.8	20.5	3321	113.9	211	107	14.2	108	0.529	0.0323	34.3	2377	3906
1983	2269	0.220	23.9	18.4	23.6	20.4	3316	113.8	212	111	13.8	109	0.544	0.0335	34.0	2363	3876
1984	2770	0.198	24.1	18.5	23.9	20.6	3318	113.7	210	113	13.6	110	0.563	0.0341	34.3	2373	3896
1985	2777	0.192	24.9	19.0	24.9	21.3	3318	113.6	205	117	13.3	112	0.606	0.0354	35.4	2453	4025
1986	2666	0.174	25.9	19.7	26.0	22.1	3241	113.8	194	118	13.0	113	0.640	0.0364	35.9	2544	4088
1987	2252	0.152	26.0	19.8	26.2	22.2	3247	113.7	188	123	12.7	114	0.684	0.0378	36.2	2557	4115
1988	2113	0.138	26.7	20.1	27.4	22.8	3293	113.4	183	129	12.3	116	0.718	0.0389	37.7	2614	4271
1989	2591	0.179	26.6	20.0	27.6	22.8	3314	113.6	181	131	12.2	117	0.735	0.0396	37.8	2608	4300
1990	2342	0.186	26.2	19.5	27.4	22.4	3450	113.7	187	140	12.0	119	0.758	0.0406	38.8	2568	4410
1991	2114	0.168	26.0	19.4	27.1	22.3	3412	113.5	191	146	11.5	121	0.773	0.0428	38.1	2544	4321
1992	2120	0.174	25.8	19.2	27.0	22.1	3515	113.9	191	151	11.5	122	0.801	0.0426	38.8	2524	4425
1993	2330	0.176	26.1	19.4	27.3	22.4	3515	113.9	192	153	11.4	123	0.812	0.0433	39.4	2561	4488
1994	2057	0.147	25.9	19.3	27.0	22.2	3529	113.5	189	155	11.4	123	0.827	0.0436	39.1	2527	4444
1995	2515	0.166	26.1	19.3	27.7	22.3	3546	114.3	189	166	10.7	127	0.889	0.0464	39.7	2566	4535
1996	2359	0.179	26.5	19.7	27.8	22.6	3527	114.1	181	162	10.9	126	0.906	0.0458	40.0	2592	4559
1997	2400	0.166	26.5	19.7	28.0	22.7	3551	114.6	184	170	10.6	128	0.933	0.0476	40.4	2616	4631
1998	2968	0.205	27.1	20.2	28.5	23.2	3534	114.0	177	169	10.5	128	0.965	0.0476	41.2	2659	4690
1999	3141	0.206	27.1	20.1	28.4	23.2	3540	114.0	175	170	10.5	128	0.984	0.0479	41.2	2653	4688
2000	2894	0.175	27.0	20.1	28.2	23.1	3550	110.2	174	178	10.2	131	1.027	0.0498	41.1	2559	4532
2001	2480	0.159	27.2	20.3	28.4	23.3	3566	113.7	175	180	10.1	132	1.034	0.0503	41.7	2663	4738
2002	2807	0.174	27.7	20.8	28.5	23.7	3549	114.8	177	185	9.8	134	1.055	0.0519	42.2	2735	4842
2003	2510	0.161	28.4	21.2	29.6	24.3	3548	111.4	188	186	9.8	134	1.064	0.0522	43.3	2713	4821
2004	2654	0.160	28.4	21.1	29.7	24.3	3593	114.2	177	192	9.8	135	1.088	0.0530	44.1	2825	5037

Percent of Midsize Car:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	2.7	0.0	0.6	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1976	2.5	0.0	0.4	0.0	0.6	0.6	0.0	99.4	0.0	0.0
1977	2.1	0.0	0.3	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1978	1.4	0.0	1.7	11.1	1.4	1.4	0.0	98.6	0.0	0.0
1979	5.2	0.0	1.9	21.4	2.3	2.3	0.0	96.3	1.4	0.0
1980	30.2	0.0	7.8	25.3	2.5	1.0	1.5	94.9	2.5	0.0
1981	32.3	0.0	5.6	52.2	2.4	0.1	2.3	93.7	4.0	0.0
1982	44.7	0.0	2.0	82.6	15.6	0.2	15.4	80.7	3.8	0.0
1983	48.9	0.0	1.2	80.0	17.7	0.5	17.2	80.6	1.7	0.0
1984	55.1	0.0	0.9	82.0	29.4	3.8	25.6	69.7	1.0	0.0
1985	61.9	0.0	1.3	77.6	50.1	13.0	37.1	49.6	0.3	0.0
1986	71.0	0.1	1.8	76.4	67.7	25.4	42.3	32.1	0.2	0.0
1987	77.3	0.2	1.5	77.6	84.1	40.7	43.4	15.5	0.4	0.0
1988	87.0	0.1	3.8	91.1	94.9	66.9	28.0	5.1	0.0	0.1
1989	86.5	0.1	4.7	91.7	99.3	78.3	21.0	0.7	0.0	0.8
1990	85.2	0.2	3.9	93.9	100.0	86.6	13.3	0.0	0.0	5.1
1991	87.2	0.1	3.6	94.5	99.9	88.7	11.2	0.0	0.1	5.3
1992	79.1	0.1	2.7	96.6	100.0	94.7	5.3	0.0	0.0	20.0
1993	85.4	0.2	2.3	97.2	100.0	95.6	4.4	0.0	0.0	27.8
1994	84.7	0.0	2.0	97.7	100.0	96.0	4.0	0.0	0.0	31.4
1995	79.6	0.0	2.7	97.2	100.0	98.9	1.1	0.0	0.0	38.5
1996	91.9	0.0	4.3	94.9	99.7	99.7	0.0	0.0	0.3	47.2
1997	90.6	0.1	2.5	97.5	99.8	99.8	0.0	0.0	0.2	49.8
1998	95.2	0.5	3.0	97.0	99.9	99.9	0.0	0.0	0.1	57.1
1999	95.2	0.7	3.3	96.3	99.8	99.8	0.0	0.0	0.2	58.5
2000	92.3	0.9	3.5	95.7	100.0	100.0	0.0	0.0	0.0	71.7
2001	93.0	1.2	3.1	96.1	100.0	100.0	0.0	0.0	0.0	66.6
2002	94.2	0.8	2.6	97.1	100.0	100.0	0.0	0.0	0.0	74.7
2003	92.7	1.1	2.9	97.0	100.0	100.0	0.0	0.0	0.0	70.3
2004	89.7	0.9	5.8	91.7	100.0	100.0	0.0	0.0	0.0	76.1

# Appendix G

Table G-6 Characteristics of 1975 to 2004 Large Car

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1555	0.152	13.1	10.2	12.6	11.2	5142		409	180	13.5	117	0.439	0.0348	28.9		
1976	1679	0.136	14.2	11.1	13.5	12.1	5156		410	180	13.4	117	0.440	0.0349	31.1		
1977	2319	0.164	15.9	12.4	15.2	13.5	4482	128.1	366	165	12.8	118	0.453	0.0370	30.4	1759	3895
1978	2048	0.142	16.8	13.0	16.3	14.3	4394	128.5	357	162	12.8	118	0.457	0.0370	31.7	1869	4071
1979	2111	0.152	17.4	13.7	16.5	14.8	4210	130.0	339	154	12.9	116	0.454	0.0365	31.3	1940	4073
1980	963	0.085	19.1	14.7	18.8	16.3	4130	130.9	314	137	14.0	112	0.440	0.0331	34.0	2156	4448
1981	956	0.091	20.4	15.4	20.8	17.4	4108	131.0	304	133	14.3	111	0.444	0.0325	36.4	2318	4762
1982	832	0.085	20.7	15.6	21.0	17.7	4034	131.0	292	135	13.9	112	0.468	0.0336	36.0	2333	4715
1983	1079	0.105	20.2	15.2	20.6	17.3	4041	131.3	292	140	13.4	113	0.481	0.0347	35.0	2272	4590
1984	1236	0.088	20.5	15.5	21.0	17.5	4022	130.9	294	140	13.4	114	0.478	0.0349	35.3	2298	4622
1985	1512	0.105	22.3	16.6	23.3	19.1	3841	129.3	279	143	12.7	116	0.512	0.0371	36.7	2470	4743
1986	1267	0.082	23.9	17.7	25.5	20.5	3719	127.4	260	147	12.1	119	0.577	0.0396	38.1	2617	4859
1987	1218	0.082	23.9	17.6	25.6	20.4	3696	127.0	259	149	11.8	120	0.587	0.0405	37.8	2602	4799
1988	1303	0.085	24.2	17.8	25.9	20.7	3730	128.1	262	150	11.9	120	0.587	0.0405	38.7	2666	4964
1989	1289	0.089	24.0	17.7	25.7	20.6	3721	127.4	261	158	11.4	122	0.619	0.0427	38.3	2626	4881
1990	1092	0.087	23.7	17.4	25.6	20.3	3799	126.7	258	161	11.4	123	0.639	0.0426	38.5	2575	4882
1991	1012	0.080	23.6	17.4	25.4	20.3	3893	129.0	264	178	10.7	127	0.685	0.0459	39.4	2616	5091
1992	1240	0.102	23.8	17.4	25.7	20.4	3872	129.6	262	185	10.4	130	0.715	0.0479	39.5	2649	5125
1993	1103	0.084	24.2	17.8	26.0	20.7	3831	128.9	256	181	10.5	129	0.720	0.0473	39.8	2685	5133
1994	1277	0.091	24.1	17.7	25.8	20.6	3858	128.3	248	188	10.2	131	0.766	0.0487	39.8	2650	5107
1995	1306	0.086	24.5	17.9	26.5	21.0	3831	127.9	248	206	9.4	138	0.845	0.0539	40.2	2689	5138
1996	1066	0.081	24.3	17.8	26.4	20.8	3894	127.6	250	217	9.2	140	0.879	0.0557	40.6	2670	5185
1997	1195	0.083	24.5	18.0	26.7	21.0	3821	127.4	242	216	9.1	141	0.903	0.0567	40.2	2690	5127
1998	913	0.063	24.6	18.0	26.5	21.1	3784	127.4	240	218	8.9	142	0.922	0.0575	39.9	2694	5083
1999	1059	0.070	24.8	18.2	26.7	21.3	3854	127.0	235	222	8.9	143	0.971	0.0576	41.0	2710	5209
2000	1665	0.100	25.6	18.8	27.4	21.9	3782	99.7	221	215	9.2	141	0.980	0.0564	41.4	2177	4176
2001	1416	0.091	25.4	18.7	27.2	21.8	3774	124.8	221	204	9.5	137	0.932	0.0538	41.2	2728	5139
2002	1252	0.078	26.0	19.2	27.6	22.3	3767	124.0	218	209	9.3	139	0.975	0.0554	42.0	2773	5205
2003	1210	0.077	25.7	19.0	27.4	22.0	3931	125.6	232	218	9.2	140	0.954	0.0556	43.3	2787	5446
2004	1519	0.091	26.0	19.2	27.6	22.2	3850	124.8	225	213	9.3	139	0.954	0.0552	42.9	2795	5350

Percent of Large Car:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	1.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	1.5	0.0	0.0	0.0	1.2	1.2	0.0	98.8	0.0	0.0
1977	1.5	0.0	0.0	0.0	0.5	0.5	0.0	99.5	0.0	0.0
1978	1.1	0.0	0.0	2.5	0.2	0.2	0.0	98.5	1.4	0.0
1979	0.0	0.0	0.0	6.5	0.2	0.2	0.0	96.4	3.5	0.0
1980	0.0	0.0	0.0	41.6	2.0	0.0	2.0	87.5	10.4	0.0
1981	0.0	0.0	0.0	89.8	17.1	0.0	17.1	67.7	15.2	0.0
1982	0.0	0.0	0.0	93.1	20.1	0.0	20.1	69.9	10.0	0.0
1983	0.0	0.0	0.0	99.9	37.3	0.0	37.3	60.3	2.4	0.0
1984	0.0	0.0	0.0	99.9	39.0	0.0	39.0	60.3	0.8	0.0
1985	31.9	0.0	0.0	100.0	64.0	19.1	44.9	35.7	0.3	0.0
1986	55.9	0.0	0.7	99.2	81.2	65.4	15.8	18.8	0.0	0.7
1987	60.9	0.0	0.5	99.5	85.1	69.9	15.2	14.9	0.0	1.1
1988	58.7	0.0	0.4	99.6	89.5	76.9	12.6	10.5	0.0	1.1
1989	61.9	0.0	0.3	99.7	97.0	74.8	22.2	3.0	0.0	0.8
1990	69.0	0.0	0.2	99.8	98.9	92.9	6.0	1.1	0.0	0.5
1991	59.8	0.0	0.4	99.6	100.0	83.3	16.7	0.0	0.0	0.9
1992	58.5	0.0	0.3	98.5	99.9	89.2	10.7	0.0	0.1	1.9
1993	64.8	0.0	0.4	98.2	100.0	89.7	10.3	0.0	0.0	8.0
1994	69.2	0.0	0.2	99.0	100.0	100.0	0.0	0.0	0.0	17.1
1995	71.2	0.0	0.2	98.2	99.9	99.9	0.0	0.0	0.1	30.4
1996	67.7	0.0	0.1	99.3	100.0	100.0	0.0	0.0	0.0	38.4
1997	72.4	0.0	0.4	99.6	100.0	100.0	0.0	0.0	0.0	35.6
1998	74.2	0.0	0.1	99.9	100.0	100.0	0.0	0.0	0.0	39.8
1999	72.5	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	50.0
2000	80.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	39.8
2001	79.3	0.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.6
2002	86.6	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	35.0
2003	70.5	0.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.7
2004	78.1	1.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.0

# Appendix G

Table G-7 Characteristics of 1975 to 2004 Small Wagon

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	477	0.047	22.4	17.4	21.6	19.1	2833		128	87	14.8	104	0.713	0.0306	27.3		
1976	345	0.028	23.9	18.7	22.9	20.4	2902		136	86	15.2	103	0.668	0.0296	29.8		
1977	384	0.027	25.5	20.2	23.8	21.7	2801	108.0	134	85	14.9	104	0.685	0.0304	30.8	2404	3317
1978	361	0.025	24.3	19.2	22.9	20.7	2805	108.0	134	90	14.3	105	0.709	0.0318	29.5	2291	3176
1979	310	0.022	25.7	20.3	24.3	21.9	2711	105.1	123	81	15.1	102	0.684	0.0294	29.8	2335	3135
1980	310	0.027	28.6	22.6	27.0	24.4	2591	108.2	113	75	15.4	101	0.685	0.0288	32.0	2702	3463
1981	418	0.040	30.0	23.6	28.5	25.6	2531	110.6	108	79	14.4	103	0.754	0.0312	32.6	2858	3601
1982	382	0.039	30.6	23.9	29.4	26.1	2580	112.2	109	75	15.3	101	0.698	0.0288	33.8	2951	3789
1983	531	0.052	32.2	25.3	30.5	27.4	2565	108.2	105	74	15.3	101	0.713	0.0288	35.3	2986	3817
1984	461	0.033	31.9	24.9	30.7	27.2	2620	116.5	107	77	15.2	102	0.719	0.0293	35.9	3206	4180
1985	496	0.034	32.5	25.4	30.9	27.7	2579	117.7	106	78	15.1	102	0.727	0.0299	35.9	3296	4227
1986	348	0.023	31.0	24.4	29.3	26.4	2647	118.4	113	82	14.7	103	0.730	0.0307	35.2	3175	4168
1987	361	0.024	30.7	24.1	29.2	26.2	2795	120.0	116	91	14.2	106	0.788	0.0323	36.8	3179	4415
1988	253	0.017	31.3	24.8	29.3	26.6	2757	118.7	113	93	13.7	107	0.829	0.0334	36.9	3190	4374
1989	159	0.011	31.5	24.8	29.9	26.8	2766	118.6	112	96	13.5	108	0.861	0.0341	37.2	3209	4416
1990	160	0.013	29.6	23.1	28.3	25.2	3026	122.2	120	110	12.9	111	0.920	0.0359	38.2	3111	4672
1991	209	0.017	30.6	23.7	29.7	26.1	3005	123.3	120	106	13.3	110	0.880	0.0349	39.3	3253	4843
1992	143	0.012	30.2	23.3	29.5	25.7	3076	123.7	122	123	12.4	116	1.016	0.0397	39.7	3223	4909
1993	301	0.023	32.5	25.0	32.2	27.8	2882	123.0	118	99	13.5	108	0.842	0.0342	40.2	3454	4944
1994	206	0.015	32.9	25.0	33.0	28.1	2908	122.9	121	103	13.3	110	0.848	0.0351	41.1	3506	5052
1995	198	0.013	33.3	25.5	33.3	28.5	2859	122.1	118	100	13.4	109	0.844	0.0348	40.8	3514	4983
1996	90	0.007	31.6	24.1	31.5	26.9	2952	118.0	122	114	12.5	113	0.928	0.0381	39.9	3218	4707
1997	150	0.010	32.3	24.5	32.5	27.6	2899	119.5	124	117	11.8	116	0.942	0.0403	40.0	3327	4781
1998	99	0.007	32.1	24.3	32.6	27.5	2872	116.9	124	119	11.7	117	0.957	0.0410	39.5	3241	4620
1999	78	0.005	31.5	23.9	32.0	26.9	2923	117.9	125	126	11.3	119	1.004	0.0426	39.5	3215	4655
2000	68	0.004	29.2	22.0	30.1	25.0	3107	119.7	127	143	10.7	123	1.129	0.0457	38.9	3015	4651
2001	212	0.014	27.3	20.9	27.1	23.3	3470	119.6	145	148	11.3	121	1.022	0.0426	40.5	2796	4841
2002	236	0.015	26.1	19.9	26.2	22.3	3504	118.2	145	156	11.0	124	1.085	0.0444	39.3	2657	4651
2003	264	0.017	28.9	22.3	28.2	24.6	3341	116.0	132	151	10.9	124	1.149	0.0450	41.7	2911	4824
2004	387	0.023	30.8	23.9	29.7	26.2	3268	117.5	129	172	9.9	132	1.325	0.0520	43.2	3136	5077

Percent of Small Wagon:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	13.3	0.0	48.6	0.0	0.8	0.8	0.0	99.2	0.0	0.0
1976	12.2	0.0	42.8	0.0	3.2	3.2	0.0	96.8	0.0	0.0
1977	23.3	0.0	52.9	0.0	6.4	6.4	0.0	93.0	0.6	0.0
1978	23.0	0.0	56.3	0.0	6.9	6.9	0.0	93.1	0.0	0.0
1979	13.3	12.1	59.3	0.0	1.0	1.0	0.0	99.0	0.0	0.0
1980	24.4	9.8	67.3	4.6	1.1	1.1	0.0	92.5	6.3	0.0
1981	57.9	8.0	62.0	8.1	4.0	4.0	0.0	93.9	2.2	0.0
1982	68.3	8.9	54.0	19.4	5.6	4.8	0.7	93.3	1.2	0.0
1983	55.4	39.3	51.0	23.7	20.7	3.7	17.0	79.0	0.3	0.0
1984	81.4	15.6	43.7	39.2	37.3	5.1	32.2	61.1	1.6	0.0
1985	60.0	39.6	42.7	42.2	21.7	6.2	15.4	77.8	0.5	0.0
1986	78.4	20.7	43.3	29.0	31.0	6.8	24.3	68.2	0.8	0.0
1987	76.6	23.4	34.4	41.0	71.8	29.2	42.6	28.2	0.0	16.3
1988	80.2	19.8	37.8	34.6	93.4	30.6	62.8	6.6	0.0	18.9
1989	89.9	10.1	26.6	51.8	89.7	41.0	48.8	10.3	0.0	36.9
1990	68.3	31.7	30.6	58.8	100.0	59.4	40.6	0.0	0.0	63.6
1991	79.1	20.9	24.4	74.1	100.0	80.0	20.0	0.0	0.0	48.6
1992	73.0	25.5	30.9	68.2	100.0	95.3	4.7	0.0	0.0	43.9
1993	83.2	16.2	28.9	70.6	100.0	95.8	4.2	0.0	0.0	19.9
1994	88.6	10.6	26.3	72.1	100.0	97.8	2.2	0.0	0.0	20.0
1995	92.8	4.6	23.8	76.2	100.0	100.0	0.0	0.0	0.0	25.7
1996	84.5	11.2	20.8	79.2	100.0	100.0	0.0	0.0	0.0	51.1
1997	83.1	14.3	19.4	80.6	100.0	100.0	0.0	0.0	0.0	40.2
1998	79.3	18.0	18.5	81.5	100.0	100.0	0.0	0.0	0.0	44.9
1999	71.8	22.8	20.1	77.6	100.0	100.0	0.0	0.0	0.0	58.7
2000	71.5	17.9	15.2	78.0	100.0	100.0	0.0	0.0	0.0	95.8
2001	92.6	5.1	14.9	84.5	100.0	100.0	0.0	0.0	0.0	95.2
2002	82.0	14.9	19.6	79.8	99.1	99.1	0.0	0.0	0.9	91.5
2003	84.4	12.7	16.8	83.2	99.2	99.2	0.0	0.0	0.8	91.1
2004	83.9	15.0	21.7	78.3	99.0	99.0	0.0	0.0	1.0	93.1

# Appendix G

Table G-8 Characteristics of 1975 to 2004 Midsize Wagon

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	289	0.028	13.2	10.2	12.9	11.3	4791		361	162	13.8	115	0.473	0.0337	27.4		
1976	485	0.039	16.0	12.6	15.1	13.6	4555		315	142	14.8	110	0.458	0.0311	31.2		
1977	548	0.039	16.3	12.9	15.3	13.9	4410	143.6	297	135	15.1	109	0.459	0.0304	30.7	2015	4417
1978	503	0.035	18.6	14.6	17.6	15.8	3836	140.0	258	123	14.4	109	0.484	0.0319	30.5	2240	4266
1979	482	0.035	19.1	15.2	17.9	16.3	3758	139.7	249	118	14.7	108	0.480	0.0312	30.7	2295	4293
1980	257	0.023	21.1	16.5	20.1	18.0	3534	139.7	228	107	15.0	106	0.482	0.0302	31.9	2542	4455
1981	272	0.026	23.1	18.1	21.8	19.6	3285	136.2	193	103	14.5	107	0.562	0.0315	32.4	2714	4417
1982	284	0.029	23.7	18.5	22.6	20.2	3384	136.1	205	108	14.3	108	0.551	0.0319	34.3	2781	4669
1983	276	0.027	24.4	19.1	23.3	20.8	3348	136.2	200	109	14.1	108	0.568	0.0323	35.0	2869	4759
1984	365	0.026	25.0	19.4	24.2	21.3	3298	135.9	172	107	14.1	108	0.633	0.0323	35.3	2922	4793
1985	341	0.024	25.2	19.4	24.6	21.5	3356	130.2	170	112	13.9	109	0.679	0.0332	36.2	2798	4718
1986	409	0.027	26.0	19.9	25.8	22.2	3355	137.8	162	115	13.6	110	0.718	0.0341	37.2	3066	5134
1987	359	0.024	25.6	19.5	25.8	21.9	3434	140.2	173	125	13.0	113	0.735	0.0362	37.6	3080	5280
1988	285	0.019	26.2	19.8	26.9	22.4	3378	139.4	171	126	12.7	114	0.743	0.0371	38.0	3144	5300
1989	239	0.017	25.6	19.3	26.4	21.9	3436	139.9	176	132	12.4	116	0.765	0.0382	37.7	3076	5283
1990	184	0.015	25.3	18.9	26.5	21.7	3498	141.6	181	139	12.0	118	0.781	0.0395	38.0	3076	5377
1991	122	0.010	25.9	19.3	27.1	22.2	3506	142.3	181	140	12.0	118	0.793	0.0398	39.0	3168	5550
1992	137	0.011	26.2	19.4	27.7	22.4	3503	142.6	188	143	11.8	119	0.777	0.0406	39.4	3208	5617
1993	166	0.013	26.2	19.5	27.5	22.5	3498	137.7	188	144	11.7	120	0.790	0.0410	39.4	3103	5427
1994	138	0.010	26.0	19.3	27.4	22.3	3532	137.4	180	151	11.4	122	0.863	0.0427	39.4	3069	5417
1995	176	0.012	26.6	19.9	27.8	22.8	3482	135.9	167	148	11.4	121	0.915	0.0426	39.7	3104	5402
1996	169	0.013	26.3	19.7	27.0	22.5	3661	136.9	161	153	11.5	122	0.965	0.0421	41.2	3090	5654
1997	149	0.010	26.3	19.8	26.8	22.4	3666	136.5	160	158	11.3	123	1.001	0.0433	41.1	3068	5621
1998	153	0.011	26.2	20.0	26.4	22.4	3669	135.3	155	169	10.7	127	1.096	0.0460	41.1	3041	5569
1999	181	0.012	26.3	19.9	26.9	22.5	3691	136.4	157	169	10.8	126	1.087	0.0457	41.6	3079	5674
2000	234	0.014	27.3	20.7	27.4	23.3	3572	134.0	153	162	11.0	125	1.060	0.0452	41.6	3146	5582
2001	236	0.015	26.6	20.3	26.5	22.7	3775	133.6	155	175	10.7	128	1.139	0.0463	43.1	3076	5751
2002	208	0.013	27.4	21.0	27.3	23.4	3731	133.6	152	172	10.7	127	1.136	0.0459	43.6	3142	5824
2003	165	0.011	26.2	19.8	26.6	22.4	3805	137.4	162	189	10.1	132	1.176	0.0494	42.6	3097	5854
2004	169	0.010	26.8	20.4	27.1	22.9	3800	134.6	156	183	10.4	130	1.190	0.0480	43.7	3113	5875

Percent of Midsize Wagon:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	4.0	0.0	7.6	7.6	0.0	92.2	0.2	0.0
1976	0.0	0.0	7.1	0.0	3.4	3.4	0.0	96.5	0.1	0.0
1977	0.0	0.0	4.6	0.0	3.5	3.5	0.0	96.2	0.3	0.0
1978	0.0	0.0	5.3	17.2	3.0	3.0	0.0	96.8	0.3	0.0
1979	0.0	0.0	5.3	9.1	2.5	2.5	0.0	95.0	2.5	0.0
1980	0.0	0.0	9.9	43.8	4.3	4.3	0.0	89.8	5.9	0.0
1981	35.6	0.0	12.8	28.5	6.9	6.9	0.0	87.2	5.9	0.0
1982	28.2	0.0	7.4	62.6	5.7	5.7	0.0	88.0	6.3	0.0
1983	32.8	0.0	6.2	50.2	7.9	7.9	0.0	89.8	2.3	0.0
1984	69.9	0.0	5.4	62.5	30.7	10.4	20.3	66.8	2.5	0.0
1985	69.5	4.5	5.9	64.7	56.2	25.7	30.5	42.0	1.8	0.0
1986	82.2	2.1	9.1	71.0	79.3	51.3	28.0	20.6	0.2	0.0
1987	83.9	0.1	4.4	83.6	94.5	71.7	22.8	4.7	0.8	0.0
1988	87.7	0.7	3.8	87.2	100.0	70.2	29.8	0.0	0.0	0.0
1989	77.5	8.2	7.1	80.7	100.0	87.7	12.3	0.0	0.0	1.0
1990	81.1	0.4	1.7	87.9	100.0	98.5	1.5	0.0	0.0	3.4
1991	79.6	1.3	2.4	85.6	100.0	99.3	0.7	0.0	0.0	3.6
1992	80.8	0.6	1.7	88.9	100.0	99.7	0.3	0.0	0.0	10.3
1993	87.0	0.6	1.8	91.2	100.0	100.0	0.0	0.0	0.0	17.3
1994	89.0	0.4	1.6	94.0	100.0	100.0	0.0	0.0	0.0	20.1
1995	64.8	27.8	10.1	86.7	100.0	100.0	0.0	0.0	0.0	51.4
1996	61.0	39.0	12.9	87.1	99.2	99.2	0.0	0.0	0.8	63.5
1997	48.5	51.5	13.3	86.7	99.9	99.9	0.0	0.0	0.1	67.6
1998	32.8	64.1	13.7	86.3	100.0	100.0	0.0	0.0	0.0	82.3
1999	44.8	52.0	12.1	87.9	100.0	100.0	0.0	0.0	0.0	68.1
2000	54.4	43.3	9.9	90.1	100.0	100.0	0.0	0.0	0.0	69.0
2001	42.4	56.5	8.5	91.5	100.0	100.0	0.0	0.0	0.0	74.6
2002	49.0	50.3	8.9	91.1	100.0	100.0	0.0	0.0	0.0	80.8
2003	74.6	25.1	3.0	97.0	100.0	100.0	0.0	0.0	0.0	82.9
2004	47.4	50.9	9.1	90.9	100.0	100.0	0.0	0.0	0.0	74.8

# Appendix G

Table G-9 Characteristics of 1975 to 2004 Large Wagon

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	197	0.019	11.9	9.3	11.6	10.2	5453		410	181	14.0	116	0.441	0.0332	27.9		
1976	207	0.017	13.5	10.6	12.9	11.5	5444		416	185	13.7	117	0.445	0.0339	31.4		
1977	340	0.024	15.5	12.2	14.6	13.2	4713	163.1	365	161	13.6	115	0.442	0.0341	31.4	2185	5113
1978	293	0.020	15.9	12.4	15.4	13.6	4664	162.4	354	162	13.4	116	0.460	0.0348	31.8	2216	5161
1979	275	0.020	16.1	12.8	15.1	13.7	4466	162.5	333	155	13.4	115	0.465	0.0346	30.7	2240	4996
1980	102	0.009	19.1	14.7	18.9	16.3	4423	161.5	323	134	15.2	109	0.418	0.0302	36.9	2690	5953
1981	108	0.010	19.9	15.0	20.3	17.0	4394	161.4	312	131	15.3	108	0.424	0.0298	38.2	2797	6154
1982	146	0.015	19.2	14.4	19.8	16.4	4396	161.3	306	139	14.6	110	0.456	0.0316	36.5	2677	5877
1983	130	0.013	19.6	14.7	20.2	16.7	4379	161.6	307	142	14.1	112	0.465	0.0324	36.8	2714	5940
1984	176	0.013	19.9	14.9	20.5	17.0	4371	161.7	305	144	13.9	112	0.472	0.0329	37.3	2760	6028
1985	145	0.010	20.9	15.6	21.8	17.9	4354	161.7	305	153	13.2	115	0.504	0.0354	39.0	2894	6299
1986	120	0.008	22.0	16.3	23.4	18.9	4381	161.4	304	146	13.9	113	0.479	0.0334	41.4	3047	6673
1987	88	0.006	22.1	16.4	23.3	19.0	4348	161.8	304	143	14.0	112	0.470	0.0330	41.3	3068	6669
1988	75	0.005	22.8	17.1	23.7	19.5	4349	161.7	304	143	14.0	112	0.470	0.0330	42.5	3158	6865
1989	63	0.004	22.5	16.9	23.3	19.3	4334	161.8	304	143	13.9	112	0.471	0.0331	41.7	3116	6747
1990	31	0.002	22.7	16.9	23.6	19.4	4337	161.6	304	143	13.9	112	0.471	0.0331	42.1	3135	6795
1991	34	0.003	22.9	16.8	24.8	19.7	4402	169.1	304	177	11.9	122	0.581	0.0404	43.2	3323	7316
1992	27	0.002	22.7	16.5	25.0	19.5	4500	170.3	338	177	12.1	121	0.526	0.0393	43.8	3315	7459
1993	19	0.001	22.5	16.3	25.1	19.3	4500	168.9	340	174	12.2	120	0.513	0.0385	43.5	3265	7347
1994	16	0.001	22.9	16.7	25.0	19.7	4500	169.2	350	250	9.1	144	0.714	0.0554	44.2	3326	7484
1995	10	0.001	22.8	16.6	24.9	19.6	4500	167.6	350	250	9.1	144	0.714	0.0555	44.0	3279	7378
1996	9	0.001	23.2	16.8	25.6	19.9	4500	170.2	350	260	8.9	147	0.743	0.0577	44.8	3386	7618
2004	64	0.004	22.1	16.7	22.5	18.9	4750	165.0	215	249	9.6	141	1.158	0.0525	44.8	3112	7386

Percent of Large Wagon:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.6	1.4	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	74.0	0.0	0.0	0.0	73.3	26.7	0.0
1981	0.0	0.0	0.0	100.0	0.2	0.0	0.2	74.6	25.2	0.0
1982	0.0	0.0	0.0	100.0	0.0	0.0	0.0	89.0	11.0	0.0
1983	0.0	0.0	0.0	100.0	24.1	0.0	24.1	71.3	4.6	0.0
1984	0.0	0.0	0.0	100.0	25.8	0.0	25.8	72.7	1.5	0.0
1985	0.0	0.0	0.0	100.0	29.2	0.0	29.2	70.4	0.4	0.0
1986	0.0	0.0	0.0	100.0	23.7	23.7	0.0	76.3	0.0	0.0
1987	0.0	0.0	0.0	100.0	30.3	30.3	0.0	69.7	0.0	0.0
1988	0.0	0.0	0.0	100.0	30.2	30.2	0.0	69.8	0.0	0.0
1989	0.0	0.0	0.0	100.0	33.1	33.1	0.0	66.9	0.0	0.0
1990	0.0	0.0	0.0	100.0	32.7	32.7	0.0	67.3	0.0	0.0
1991	0.0	0.0	0.0	100.0	100.0	19.5	80.5	0.0	0.0	0.0
1992	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1993	0.2	0.0	0.0	100.0	100.0	0.2	99.8	0.0	0.0	0.0
1994	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	50.0	50.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-1 Characteristics of 1975 to 2004 1750. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1985	37	0.003	57.4	46.7	51.5	48.8	1750	82.6	61	48	15.7	96	0.787	0.0273	42.8	4037	3533
1986	81	0.005	55.9	45.8	49.7	47.4	1750	84.6	61	46	16.3	95	0.758	0.0264	42.3	4080	3570
1987	38	0.003	56.8	46.2	51.0	48.3	1750	84.4	61	46	16.2	95	0.756	0.0263	42.5	4098	3586
1988	55	0.004	51.6	42.3	45.8	43.8	1750	84.6	61	47	16.3	95	0.766	0.0266	39.0	3769	3298
1989	25	0.002	59.4	48.7	52.6	50.4	1750	90.9	61	49	15.4	96	0.806	0.0280	44.1	4581	4008
1990	4	0.000	65.3	53.2	58.3	55.4	1750	89.1	61	49	15.5	96	0.803	0.0280	48.5	4935	4318
1991	4	0.000	65.3	53.2	58.3	55.4	1750	89.1	61	55	14.1	100	0.902	0.0313	48.5	4935	4318
1992	8	0.001	65.3	53.2	58.3	55.4	1750	89.1	61	55	14.1	100	0.902	0.0314	48.5	4935	4318
1993	10	0.001	65.3	53.2	58.3	55.4	1750	89.1	61	55	14.1	100	0.902	0.0314	48.5	4935	4318
1994	8	0.001	65.8	54.0	58.3	55.8	1750	89.1	61	55	14.1	100	0.902	0.0314	48.9	4975	4353

Percent of 1750. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1985	100.0	0.0	90.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	100.0	0.0	64.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1988	100.0	0.0	59.5	0.0	2.8	0.0	2.8	97.2	0.0	0.0
1989	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1990	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1991	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1992	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1993	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1994	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0

# Appendix H

Table H-2 Characteristics of 1975 to 2004 2000. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	105	0.010	31.4	24.5	30.1	26.7	2000		83	54	15.9	97	0.655	0.0271	26.9		
1976	154	0.012	32.6	25.5	31.0	27.8	2000		83	56	15.6	97	0.670	0.0279	28.0		
1977	157	0.011	36.0	28.2	34.3	30.7	2000	73.7	84	61	14.4	100	0.739	0.0307	31.4	2307	2307
1978	270	0.019	34.9	27.8	32.5	29.7	2000	80.3	90	62	14.3	101	0.695	0.0312	30.0	2423	2423
1979	234	0.017	32.0	25.4	29.9	27.2	2000	80.1	88	62	14.3	101	0.712	0.0311	27.5	2208	2208
1980	280	0.025	33.0	26.1	30.9	28.0	2000	85.7	90	63	14.3	101	0.696	0.0314	28.4	2434	2434
1981	209	0.020	38.4	30.8	35.0	32.6	2000	86.7	86	64	14.0	102	0.744	0.0320	33.0	2857	2857
1982	157	0.016	40.3	32.3	36.9	34.2	2000	87.3	86	61	14.5	100	0.715	0.0307	34.6	3022	3022
1983	94	0.009	43.6	34.9	40.2	37.1	2000	86.0	84	61	14.4	100	0.728	0.0306	37.4	3216	3216
1984	92	0.007	44.3	35.4	40.8	37.7	2000	73.5	86	67	13.5	103	0.776	0.0334	38.2	2802	2802
1985	62	0.004	44.4	35.5	40.9	37.7	2000	60.2	89	69	13.3	105	0.782	0.0347	38.7	2343	2343
1986	58	0.004	36.6	28.5	35.1	31.2	2000	72.3	76	56	15.4	98	0.750	0.0280	33.2	2264	2264
1987	106	0.007	40.0	32.1	36.5	34.0	2000	79.9	70	55	15.9	97	0.799	0.0275	35.4	2766	2766
1988	186	0.012	43.6	35.6	38.9	37.0	2000	91.0	77	59	15.0	99	0.770	0.0293	37.7	3401	3401
1989	135	0.009	43.5	35.8	38.3	36.9	2000	92.4	76	59	15.2	99	0.782	0.0294	37.7	3439	3439
1990	71	0.006	47.5	38.3	43.2	40.4	2000	92.7	72	58	15.2	99	0.813	0.0289	40.8	3780	3780
1991	142	0.011	47.1	38.0	42.7	40.0	2000	88.8	67	58	15.3	98	0.866	0.0287	40.6	3604	3604
1992	120	0.010	47.3	38.3	42.7	40.2	2000	88.8	64	56	15.6	98	0.886	0.0281	40.6	3612	3612
1993	111	0.008	48.6	39.2	44.1	41.3	2000	91.1	67	58	15.2	99	0.869	0.0290	41.8	3810	3810
1994	97	0.007	48.9	39.8	43.8	41.5	2000	91.9	62	56	15.7	98	0.902	0.0281	42.1	3872	3872
1995	33	0.002	53.7	43.4	48.6	45.6	2000	99.9	63	57	15.4	98	0.900	0.0283	45.7	4561	4561
1996	37	0.003	52.3	42.5	47.0	44.4	2000	99.9	72	60	14.8	99	0.846	0.0298	44.6	4460	4460
1997	13	0.001	54.4	44.0	49.3	46.2	2000	90.5	61	55	15.7	97	0.902	0.0275	46.2	4185	4185
1998	11	0.001	53.6	42.8	49.5	45.6	2000	89.7	60	55	15.7	97	0.917	0.0274	45.6	4085	4085
1999	8	0.001	50.3	39.9	46.9	42.8	2000	88.0	61	55	15.7	97	0.902	0.0274	42.8	3763	3763
2000	11	0.001	61.6	49.5	56.4	52.4	2000	68.1	61	61	13.2	100	1.005	0.0306	54.6	3509	3509
2001	2	0.000	75.6	60.9	68.7	64.2	2000	50.0	61	67	13.4	103	1.098	0.0330	64.2	3211	3211
2002	1	0.000	75.3	60.9	68.0	63.9	2000	50.0	61	67	11.0	103	1.097	0.0330	63.9	3196	3196
2003	0	0.000	75.1	60.7	68.0	63.8	2000	50.0	61	67	13.4	103	1.098	0.0327	63.8	3188	3188
2004	0	0.000	73.8	60.4	65.6	62.6	2000	50.0	61	67	13.4	103	1.097	0.0333	62.6	3131	3131

Percent of 2000. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	92.5	0.0	89.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	100.0	0.0	87.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	100.0	0.0	83.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	82.7	0.0	90.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	85.1	0.0	93.0	2.5	0.0	0.0	0.0	100.0	0.0	0.0
1983	91.9	0.0	100.0	0.0	8.1	8.1	0.0	91.9	0.0	0.0
1984	98.7	0.0	96.7	3.1	1.3	1.3	0.0	98.7	0.0	0.0
1985	100.0	0.0	94.7	5.3	11.9	11.9	0.0	88.1	0.0	0.0
1986	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	100.0	0.0	80.5	0.0	6.3	6.3	0.0	93.7	0.0	0.0
1988	93.9	6.1	99.0	0.0	14.0	14.0	0.0	86.0	0.0	0.0
1989	100.0	0.0	65.0	0.0	57.2	37.9	19.3	42.8	0.0	2.1
1990	100.0	0.0	89.8	0.0	97.4	50.5	46.9	2.6	0.0	0.4
1991	100.0	0.0	68.4	0.0	98.3	29.1	69.2	1.7	0.0	0.0
1992	100.0	0.0	53.4	0.0	99.6	13.0	86.6	0.4	0.0	0.0
1993	100.0	0.0	76.2	0.0	100.0	28.7	71.3	0.0	0.0	0.0
1994	100.0	0.0	52.3	0.0	100.0	1.5	98.5	0.0	0.0	0.0
1995	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1996	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1997	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1998	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1999	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
2000	52.4	0.0	100.0	0.0	100.0	52.4	47.6	0.0	0.0	52.4
2001	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-3 Characteristics of 1975 to 2004 2250. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	375	0.037	28.3	21.6	28.4	24.2	2250		89	66	15.3	100	0.749	0.0294	27.4		
1976	570	0.046	29.6	23.2	28.2	25.2	2250		91	66	15.3	100	0.736	0.0295	28.6		
1977	851	0.060	32.1	25.0	30.8	27.3	2250	85.5	90	68	14.8	101	0.762	0.0303	31.3	2385	2683
1978	886	0.061	31.9	25.2	29.9	27.1	2250	85.6	89	67	15.0	100	0.758	0.0297	31.3	2394	2694
1979	699	0.050	31.4	24.7	29.6	26.7	2250	88.0	88	65	15.2	100	0.745	0.0291	30.5	2394	2694
1980	1162	0.103	32.4	25.6	30.4	27.5	2250	89.6	92	67	15.0	100	0.722	0.0296	31.6	2515	2830
1981	1191	0.113	34.4	27.2	32.4	29.3	2250	91.3	96	68	14.8	101	0.710	0.0301	33.5	2713	3052
1982	884	0.091	35.6	28.2	33.3	30.3	2250	92.5	94	66	15.0	100	0.703	0.0294	34.5	2833	3187
1983	985	0.096	36.2	28.6	34.1	30.8	2250	96.4	94	67	14.9	101	0.709	0.0298	35.1	3003	3379
1984	899	0.064	37.1	29.3	34.8	31.5	2250	97.2	94	68	14.8	101	0.721	0.0302	36.0	3113	3502
1985	840	0.058	37.5	29.8	34.9	31.9	2250	96.9	94	70	14.4	102	0.748	0.0311	36.3	3130	3521
1986	745	0.048	38.5	30.8	35.4	32.7	2250	93.1	93	68	14.8	101	0.737	0.0303	37.2	3084	3469
1987	461	0.031	39.0	31.3	35.6	33.1	2250	89.7	90	69	14.6	102	0.766	0.0307	37.6	3003	3378
1988	401	0.026	38.9	31.3	35.6	33.1	2250	91.7	90	73	14.0	104	0.808	0.0325	37.5	3062	3444
1989	280	0.019	38.7	31.1	35.4	32.9	2250	93.4	89	78	13.3	106	0.876	0.0346	37.4	3106	3495
1990	97	0.008	39.6	32.0	35.8	33.6	2250	87.6	86	77	13.5	105	0.891	0.0340	38.3	2935	3302
1991	129	0.010	38.1	30.6	34.8	32.3	2250	90.3	88	81	12.9	107	0.921	0.0359	37.1	2927	3292
1992	146	0.012	39.7	31.7	36.6	33.7	2250	93.2	89	82	12.8	108	0.924	0.0364	39.0	3227	3631
1993	136	0.010	38.7	30.9	35.6	32.9	2250	94.4	88	81	12.8	108	0.921	0.0361	37.6	3154	3548
1994	117	0.008	39.6	31.4	36.8	33.6	2250	95.5	86	76	13.6	105	0.885	0.0339	38.3	3254	3661
1995	161	0.011	40.4	32.3	37.3	34.4	2250	95.8	84	76	13.7	105	0.903	0.0339	39.0	3323	3738
1996	135	0.010	38.9	31.1	35.9	33.1	2250	95.7	90	78	13.5	106	0.869	0.0348	37.4	3174	3571
1997	87	0.006	39.3	31.3	36.4	33.4	2250	92.1	81	72	14.2	103	0.891	0.0322	37.8	3102	3489
1998	26	0.002	39.0	31.3	35.8	33.1	2250	89.8	80	80	13.0	107	1.002	0.0355	37.6	2999	3374
1999	23	0.002	38.6	30.8	35.7	32.8	2250	88.1	80	81	13.0	107	1.003	0.0358	37.2	2908	3271
2000	43	0.003	39.6	31.5	36.8	33.7	2250	92.3	83	89	12.2	111	1.063	0.0394	38.1	3142	3535
2001	24	0.002	39.3	31.4	36.3	33.4	2250	86.6	80	81	13.0	107	1.015	0.0359	38.4	2909	3272
2002	3	0.000	51.5	41.8	46.4	43.7	2250	77.9	78	88	10.6	111	1.124	0.0390	51.4	3314	3728
2003	2	0.000	50.8	41.0	46.0	43.1	2250	82.9	81	93	12.0	113	1.136	0.0406	50.1	3490	3926
2004	1	0.000	56.4	46.3	49.8	47.8	2250	69.3	72	81	13.4	108	1.111	0.0353	55.6	3216	3618

Percent of 2250. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	46.1	0.0	90.3	0.0	22.6	22.6	0.0	77.4	0.0	0.0
1976	37.5	0.0	72.2	0.0	5.7	5.7	0.0	94.3	0.0	0.0
1977	43.0	0.0	78.9	0.0	14.4	14.4	0.0	83.7	1.9	0.0
1978	41.6	0.0	80.6	0.0	16.7	16.7	0.0	79.2	4.1	0.0
1979	44.8	0.0	87.0	0.0	15.6	15.6	0.0	79.0	5.5	0.0
1980	57.9	0.0	80.7	0.0	14.9	14.9	0.0	75.7	9.3	0.0
1981	69.8	0.0	82.7	5.0	6.5	6.5	0.0	84.3	9.2	0.0
1982	79.8	0.0	74.9	6.8	5.7	5.7	0.0	89.6	4.7	0.0
1983	93.2	1.6	72.6	10.2	20.1	8.0	12.1	78.5	1.4	0.0
1984	91.1	0.0	71.8	13.5	23.3	6.8	16.5	74.1	2.6	0.0
1985	97.1	0.3	65.3	21.6	10.2	1.6	8.6	89.7	0.1	0.0
1986	96.3	0.0	65.5	20.1	14.0	7.7	6.3	85.9	0.0	0.0
1987	96.3	0.0	70.5	14.1	13.2	9.9	3.4	86.8	0.0	1.6
1988	100.0	0.0	69.9	18.0	37.5	9.4	28.1	62.5	0.0	28.0
1989	100.0	0.0	63.5	15.0	33.1	5.1	28.0	66.9	0.0	23.1
1990	95.4	4.6	70.3	3.6	59.6	39.4	20.3	40.4	0.0	19.3
1991	95.7	4.3	69.6	22.3	99.1	80.3	18.8	0.9	0.0	18.1
1992	99.8	0.2	80.0	12.5	99.8	97.8	2.0	0.2	0.0	20.6
1993	98.6	1.4	76.0	13.3	100.0	98.2	1.8	0.0	0.0	16.1
1994	100.0	0.0	79.9	16.6	100.0	96.5	3.5	0.0	0.0	7.5
1995	100.0	0.0	48.7	27.7	100.0	69.9	30.1	0.0	0.0	31.6
1996	100.0	0.0	29.5	32.8	100.0	63.1	36.9	0.0	0.0	38.4
1997	100.0	0.0	39.1	4.4	100.0	38.2	61.8	0.0	0.0	17.3
1998	100.0	0.0	22.8	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	100.0	0.0	23.5	0.0	100.0	100.0	0.0	0.0	0.0	21.7
2000	40.6	0.0	39.3	0.0	100.0	100.0	0.0	0.0	0.0	40.6
2001	100.0	0.0	15.3	0.0	100.0	100.0	0.0	0.0	0.0	34.4
2002	100.0	0.0	54.4	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	100.0	0.0	65.3	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	100.0	0.0	38.3	0.0	100.0	100.0	0.0	0.0	0.0	100.0



# Appendix H

Table H-4 Characteristics of 1975 to 2004 2500. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	406	0.040	24.4	18.8	23.8	20.8	2500		95	73	15.2	101	0.774	0.0292	26.1		
1976	349	0.028	26.2	20.2	25.8	22.4	2500		97	73	15.1	101	0.755	0.0292	28.3		
1977	465	0.033	29.3	23.0	27.9	24.9	2500	90.3	98	75	14.9	102	0.764	0.0298	31.5	2278	2847
1978	782	0.054	27.9	22.1	26.2	23.8	2500	91.6	101	74	15.1	101	0.734	0.0296	30.0	2197	2746
1979	1078	0.078	27.9	22.2	25.8	23.7	2500	90.6	101	72	15.4	100	0.710	0.0286	29.8	2163	2703
1980	1172	0.104	28.0	22.3	26.0	23.8	2500	92.3	104	71	15.6	100	0.680	0.0283	30.0	2218	2772
1981	1531	0.145	29.4	23.2	27.6	25.0	2500	94.8	108	76	14.8	102	0.711	0.0304	31.5	2398	2997
1982	1442	0.148	31.2	24.4	29.7	26.6	2500	91.5	106	72	15.4	101	0.683	0.0288	33.6	2469	3086
1983	1240	0.120	32.2	25.3	30.5	27.4	2500	94.8	106	75	15.0	102	0.705	0.0300	34.6	2643	3303
1984	1529	0.109	32.7	25.6	31.2	27.8	2500	96.3	107	78	14.7	103	0.726	0.0311	35.2	2721	3401
1985	1699	0.118	32.8	25.6	31.5	28.0	2500	98.3	109	82	14.0	105	0.760	0.0329	35.4	2799	3498
1986	1622	0.106	33.7	26.5	31.9	28.7	2500	100.0	106	80	14.3	104	0.759	0.0320	36.1	2895	3618
1987	1975	0.133	33.4	26.3	31.6	28.5	2500	98.9	104	78	14.6	103	0.749	0.0311	35.8	2835	3544
1988	1802	0.118	34.1	27.1	31.9	29.0	2500	99.5	100	78	14.5	103	0.785	0.0314	36.5	2908	3636
1989	1335	0.092	34.4	27.1	32.4	29.2	2500	98.0	98	85	13.6	106	0.865	0.0339	36.8	2881	3602
1990	942	0.075	35.1	27.8	32.8	29.9	2500	94.0	97	89	13.0	108	0.920	0.0356	37.5	2833	3542
1991	748	0.059	35.8	28.3	33.6	30.5	2500	94.2	96	91	12.8	109	0.957	0.0364	38.3	2900	3625
1992	525	0.043	35.9	28.1	34.2	30.5	2500	94.1	97	94	12.5	110	0.980	0.0375	38.5	2910	3637
1993	517	0.039	36.5	28.5	35.2	31.1	2500	93.9	99	93	12.5	110	0.956	0.0374	39.3	2952	3691
1994	424	0.030	36.0	27.9	34.9	30.7	2500	94.4	100	91	12.8	109	0.929	0.0366	38.9	2945	3682
1995	484	0.032	37.5	28.9	36.8	32.0	2500	94.1	100	99	12.0	113	0.991	0.0395	40.3	3045	3806
1996	329	0.025	37.4	28.8	36.8	31.9	2500	95.3	103	102	11.8	114	0.999	0.0407	40.2	3082	3853
1997	329	0.023	37.0	28.6	36.2	31.6	2500	94.8	101	98	12.2	112	0.976	0.0392	39.7	3034	3793
1998	207	0.014	37.3	28.5	37.1	31.8	2500	99.6	104	97	12.1	112	0.948	0.0389	39.9	3179	3974
1999	253	0.017	35.9	27.5	35.5	30.6	2500	93.1	105	103	11.7	114	0.983	0.0411	38.5	2891	3614
2000	166	0.010	36.7	28.3	36.2	31.3	2500	95.2	103	107	11.3	116	1.048	0.0427	39.4	3032	3791
2001	214	0.014	36.2	28.0	35.1	30.8	2500	99.8	100	102	11.7	114	1.032	0.0408	38.8	3109	3886
2002	149	0.009	37.3	28.5	37.1	31.9	2500	100.1	106	101	11.7	114	0.967	0.0406	40.0	3210	4012
2003	39	0.003	40.8	32.1	38.6	34.7	2500	93.6	94	112	10.9	119	1.184	0.0447	43.7	3317	4146
2004	31	0.002	41.3	32.5	39.0	35.1	2500	94.3	93	111	10.9	118	1.195	0.0445	44.2	3377	4221

Percent of 2500. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	36.0	0.0	75.3	0.0	20.4	20.4	0.0	79.6	0.0	0.0
1976	18.3	0.0	67.5	0.0	12.9	12.9	0.0	87.1	0.0	0.0
1977	20.7	0.0	69.3	0.0	12.5	12.5	0.0	86.3	1.2	0.0
1978	34.3	0.0	53.2	0.0	8.0	8.0	0.0	92.0	0.0	0.0
1979	43.7	3.5	56.8	0.0	2.3	2.3	0.0	97.2	0.6	0.0
1980	47.9	3.9	52.5	0.0	3.8	3.8	0.0	93.5	2.8	0.0
1981	53.6	2.7	52.4	0.9	4.1	4.1	0.0	93.4	2.5	0.0
1982	69.3	0.6	57.3	8.6	4.6	4.6	0.0	92.4	3.0	0.0
1983	68.9	13.1	51.3	20.7	3.2	3.2	0.1	96.3	0.4	0.0
1984	75.4	2.4	47.3	26.4	13.5	11.9	1.6	84.4	2.2	0.0
1985	77.1	9.2	53.7	19.8	19.9	15.7	4.2	78.4	1.7	0.0
1986	94.3	0.9	49.5	22.1	22.2	16.9	5.3	76.8	1.0	0.8
1987	97.7	0.8	47.7	32.6	33.2	13.6	19.5	66.8	0.0	2.7
1988	99.7	0.3	48.3	41.8	63.4	11.9	51.5	36.6	0.0	13.6
1989	97.8	2.2	52.0	37.6	72.0	24.7	47.3	28.0	0.0	24.5
1990	94.4	0.1	56.7	34.2	95.5	44.5	51.0	4.5	0.0	30.1
1991	94.7	0.1	62.7	36.6	100.0	64.0	36.0	0.0	0.0	43.1
1992	94.7	0.0	53.6	46.3	100.0	82.6	17.4	0.0	0.0	50.6
1993	95.8	0.0	61.9	32.8	100.0	76.7	23.3	0.0	0.0	35.7
1994	95.2	0.0	50.7	41.6	100.0	75.4	24.6	0.0	0.0	46.9
1995	95.9	0.0	48.4	45.6	100.0	100.0	0.0	0.0	0.0	47.4
1996	94.2	0.0	50.1	43.7	100.0	100.0	0.0	0.0	0.0	44.6
1997	94.4	0.0	47.0	53.0	100.0	100.0	0.0	0.0	0.0	38.8
1998	100.0	0.0	38.9	61.1	100.0	100.0	0.0	0.0	0.0	22.2
1999	100.0	0.0	41.9	58.1	100.0	100.0	0.0	0.0	0.0	27.4
2000	88.4	0.0	45.3	54.7	100.0	100.0	0.0	0.0	0.0	51.8
2001	96.8	0.0	36.1	63.9	100.0	100.0	0.0	0.0	0.0	60.6
2002	96.4	0.0	38.0	62.0	100.0	100.0	0.0	0.0	0.0	26.5
2003	86.7	0.0	23.9	76.1	100.0	100.0	0.0	0.0	0.0	100.0
2004	88.1	0.0	35.6	64.4	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-5 Characteristics of 1975 to 2004 2750. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	281	0.027	21.7	16.6	21.6	18.5	2750		127	100	12.8	110	0.799	0.0364	25.9		
1976	203	0.016	24.5	19.0	23.7	20.9	2750		121	95	13.4	108	0.794	0.0346	29.1		
1977	349	0.025	24.8	19.2	24.1	21.1	2750	80.3	126	96	13.3	109	0.765	0.0349	29.4	1728	2375
1978	498	0.034	24.8	19.3	24.1	21.2	2750	88.6	129	94	13.4	108	0.740	0.0343	29.4	1892	2602
1979	459	0.033	24.0	18.5	23.7	20.5	2750	82.2	132	94	13.6	108	0.710	0.0340	28.4	1720	2365
1980	973	0.086	26.1	19.9	26.0	22.2	2750	96.0	141	93	13.6	107	0.665	0.0339	30.9	2176	2992
1981	714	0.068	27.7	21.6	26.7	23.6	2750	107.2	136	92	13.8	107	0.678	0.0332	32.7	2533	3482
1982	961	0.099	28.8	22.0	28.5	24.5	2750	104.3	124	87	14.4	105	0.707	0.0315	33.8	2566	3528
1983	863	0.084	30.2	23.6	28.9	25.7	2750	106.3	124	88	14.2	105	0.712	0.0319	35.6	2756	3790
1984	2050	0.146	30.1	23.3	29.3	25.7	2750	102.7	127	89	14.1	106	0.705	0.0324	35.5	2653	3648
1985	1878	0.130	30.6	23.7	29.6	26.0	2750	102.9	128	93	13.6	108	0.735	0.0340	36.0	2696	3707
1986	1899	0.124	30.6	23.7	29.8	26.1	2750	102.0	125	95	13.4	108	0.769	0.0347	36.1	2678	3682
1987	1896	0.128	30.8	23.9	30.0	26.3	2750	101.7	124	96	13.3	109	0.790	0.0350	36.3	2680	3684
1988	1519	0.099	31.5	24.4	30.7	26.9	2750	102.1	123	97	13.1	109	0.804	0.0353	37.1	2750	3782
1989	1204	0.083	31.8	24.6	30.9	27.1	2750	101.7	118	96	13.3	109	0.820	0.0348	37.4	2763	3799
1990	1081	0.086	31.9	24.9	30.8	27.2	2750	98.7	111	100	12.9	110	0.919	0.0363	37.5	2692	3701
1991	1462	0.116	32.5	25.0	31.8	27.7	2750	100.3	112	100	12.9	110	0.913	0.0364	38.2	2792	3839
1992	1280	0.105	32.6	25.1	32.0	27.8	2750	98.5	110	106	12.3	113	0.972	0.0385	38.5	2759	3794
1993	1651	0.125	33.0	25.3	32.5	28.1	2750	101.9	112	106	12.4	113	0.955	0.0384	38.9	2882	3963
1994	1521	0.109	33.6	25.7	33.4	28.7	2750	101.2	109	108	12.1	114	1.001	0.0393	39.7	2922	4017
1995	1747	0.115	33.9	26.0	33.6	29.0	2750	102.6	109	111	12.0	115	1.017	0.0403	40.0	2987	4107
1996	1240	0.094	33.9	26.0	33.3	28.9	2750	101.5	108	117	11.5	118	1.086	0.0427	40.0	2950	4056
1997	1643	0.114	34.0	26.2	33.5	29.0	2750	100.5	109	112	11.7	116	1.038	0.0409	40.1	2933	4033
1998	1620	0.112	34.6	26.4	34.4	29.5	2750	100.5	110	117	11.3	118	1.071	0.0427	40.8	2979	4095
1999	1348	0.088	34.6	26.6	34.2	29.6	2750	100.5	110	117	11.4	117	1.070	0.0424	40.8	2980	4098
2000	1318	0.080	34.3	26.4	33.7	29.2	2750	100.5	108	120	11.2	119	1.118	0.0436	40.4	2952	4059
2001	1184	0.076	35.9	27.6	35.5	30.7	2750	99.6	108	121	11.0	119	1.122	0.0440	42.5	3085	4241
2002	913	0.057	36.3	28.0	35.8	31.0	2750	99.6	107	119	11.2	119	1.121	0.0434	42.9	3113	4280
2003	682	0.044	37.2	28.6	36.5	31.7	2750	100.9	106	123	10.9	120	1.155	0.0446	43.8	3221	4428
2004	746	0.045	36.8	28.4	36.1	31.4	2750	99.1	104	119	11.2	118	1.145	0.0432	43.4	3137	4313

Percent of 2750. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.4	0.0	70.7	0.0	3.9	3.9	0.0	96.1	0.0	0.0
1976	0.9	0.0	63.5	0.0	3.6	3.6	0.0	96.4	0.0	0.0
1977	2.0	0.0	67.5	0.0	9.4	9.4	0.0	90.6	0.0	0.0
1978	0.9	0.0	66.7	0.0	5.5	5.5	0.0	94.5	0.0	0.0
1979	5.4	0.0	59.6	0.0	6.1	6.1	0.0	93.9	0.0	0.0
1980	47.9	0.0	53.6	0.0	13.8	13.8	0.0	86.2	0.0	0.0
1981	70.0	0.0	36.0	0.0	18.3	18.3	0.0	81.1	0.6	0.0
1982	77.9	3.1	33.7	30.2	12.2	6.4	5.8	87.4	0.4	0.0
1983	89.4	4.0	31.2	33.0	52.9	12.3	40.6	46.5	0.6	0.0
1984	87.7	2.2	30.5	36.3	54.7	12.2	42.4	44.3	1.0	0.0
1985	93.3	2.8	21.8	45.1	74.0	14.5	59.5	25.6	0.4	0.0
1986	92.7	2.9	34.7	47.5	84.7	32.1	52.6	15.0	0.3	3.0
1987	95.7	1.9	31.5	44.0	83.2	24.7	58.4	16.6	0.2	6.9
1988	97.4	1.8	31.0	58.1	78.6	18.9	59.8	21.4	0.0	7.9
1989	97.5	1.1	29.6	59.2	85.6	21.8	63.8	14.1	0.3	13.1
1990	99.0	0.9	25.7	65.5	99.5	56.5	43.0	0.4	0.2	45.9
1991	99.3	0.2	28.1	68.0	99.7	63.5	36.1	0.0	0.3	45.0
1992	99.5	0.5	30.1	64.4	99.9	85.9	14.0	0.0	0.1	52.6
1993	98.4	1.6	27.3	69.4	100.0	93.8	6.2	0.0	0.0	43.1
1994	98.7	0.1	32.1	66.4	100.0	99.7	0.3	0.0	0.0	67.4
1995	99.9	0.0	27.6	72.4	100.0	100.0	0.0	0.0	0.0	74.7
1996	100.0	0.0	25.1	74.8	100.0	100.0	0.0	0.0	0.0	88.0
1997	100.0	0.0	22.1	77.5	100.0	100.0	0.0	0.0	0.0	75.4
1998	100.0	0.0	22.3	77.4	100.0	100.0	0.0	0.0	0.0	83.3
1999	100.0	0.0	19.1	80.3	100.0	100.0	0.0	0.0	0.0	79.6
2000	96.9	0.0	21.1	77.2	100.0	100.0	0.0	0.0	0.0	88.8
2001	94.2	0.0	20.1	78.4	100.0	100.0	0.0	0.0	0.0	88.9
2002	98.5	0.0	22.1	77.0	100.0	100.0	0.0	0.0	0.0	90.7
2003	98.5	0.0	20.8	78.2	100.0	100.0	0.0	0.0	0.0	100.0
2004	98.1	0.0	25.4	65.1	100.0	100.0	0.0	0.0	0.0	99.7

# Appendix H

Table H-6 Characteristics of 1975 to 2004 3000. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	828	0.081	21.4	16.6	20.9	18.3	3000		147 98	14.4	107	0.674	0.0328	27.8		
1976	884	0.072	23.5	18.1	23.1	20.1	3000		147 95	14.6	106	0.657	0.0316	30.4		
1977	584	0.041	23.2	18.1	22.3	19.8	3000	87.6	146 104	13.7	109	0.715	0.0345	30.1	1771	2656
1978	903	0.062	22.5	17.7	21.3	19.2	3000	97.3	164 102	13.9	108	0.637	0.0338	29.1	1885	2828
1979	1286	0.093	22.1	17.2	21.3	18.9	3000	96.3	162 100	13.9	108	0.634	0.0333	28.6	1834	2751
1980	2026	0.179	23.6	18.3	23.0	20.1	3000	100.9	164 100	13.8	108	0.624	0.0334	30.3	2040	3060
1981	1626	0.154	24.4	19.0	23.4	20.8	3000	103.8	165 101	13.9	108	0.619	0.0335	31.4	2168	3252
1982	1554	0.160	25.7	19.7	25.4	21.9	3000	104.2	163 103	13.6	109	0.640	0.0342	33.3	2319	3479
1983	1515	0.147	25.8	19.8	25.6	22.0	3000	105.4	161 104	13.4	110	0.658	0.0348	33.4	2346	3520
1984	1994	0.142	26.4	20.2	26.2	22.5	3000	104.9	157 107	13.3	111	0.689	0.0356	34.1	2381	3571
1985	2037	0.141	27.1	20.7	26.9	23.1	3000	106.4	153 110	13.0	112	0.727	0.0366	35.0	2481	3722
1986	2829	0.184	27.5	21.1	27.2	23.5	3000	106.6	151 108	13.2	111	0.723	0.0359	35.4	2522	3784
1987	2743	0.185	27.9	21.4	27.6	23.8	3000	106.3	147 111	12.9	112	0.767	0.0371	36.1	2558	3837
1988	3146	0.206	28.4	21.8	28.2	24.3	3000	105.3	145 114	12.6	113	0.797	0.0379	36.7	2575	3863
1989	3402	0.235	28.4	21.7	28.2	24.2	3000	105.2	146 118	12.3	115	0.815	0.0392	36.5	2562	3843
1990	2856	0.226	28.6	21.9	28.3	24.4	3000	103.9	142 121	12.0	116	0.867	0.0405	36.7	2544	3815
1991	2714	0.216	28.1	21.6	27.9	24.0	3000	104.0	145 124	11.8	118	0.868	0.0414	36.2	2512	3768
1992	1918	0.158	28.4	21.7	28.4	24.2	3000	102.7	146 127	11.6	119	0.884	0.0422	36.5	2500	3750
1993	2021	0.153	28.7	21.8	28.8	24.5	3000	102.6	147 125	11.8	118	0.863	0.0416	36.9	2527	3790
1994	2033	0.145	29.1	22.2	29.1	24.8	3000	102.9	143 124	11.8	117	0.881	0.0413	37.4	2563	3845
1995	1933	0.128	29.7	22.5	30.1	25.4	3000	103.6	139 135	10.9	122	0.988	0.0451	38.2	2640	3960
1996	1796	0.137	29.9	22.6	30.6	25.6	3000	103.1	137 133	11.0	121	0.980	0.0443	38.5	2646	3969
1997	1765	0.122	30.0	22.6	30.5	25.6	3000	102.5	136 134	10.9	121	0.993	0.0447	38.5	2632	3948
1998	1152	0.080	30.1	22.8	30.5	25.7	3000	101.1	132 131	11.2	120	0.996	0.0435	38.8	2616	3924
1999	923	0.061	30.1	22.9	30.2	25.7	3000	99.9	128 128	11.4	119	1.001	0.0425	38.8	2587	3880
2000	1470	0.089	30.6	23.4	30.5	26.2	3000	102.0	126 127	11.5	119	1.007	0.0422	39.5	2697	4046
2001	1256	0.081	31.6	24.2	31.2	27.0	3000	102.5	125 129	11.4	119	1.031	0.0429	40.9	2807	4211
2002	1588	0.099	31.4	24.1	31.1	26.8	3000	104.2	124 132	11.2	121	1.064	0.0439	40.7	2832	4249
2003	1730	0.111	33.0	25.4	32.4	28.1	3000	99.9	145 132	11.1	121	1.055	0.0441	42.8	2850	4275
2004	1941	0.117	33.0	25.2	33.0	28.2	3000	105.2	125 137	10.9	122	1.092	0.0455	43.1	3025	4538

Percent of 3000. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT 4WD	TRANSMISSION MANUAL LOCK	FUEL FI	METERING PORT TBI	CARB	FOUR DSL VALVE
1975	3.5 0.0	48.6 0.0	17.1	17.1	0.0	82.9 0.0 0.0
1976	2.5 0.0	50.4 0.0	9.8	9.8	0.0	90.2 0.0 0.0
1977	3.6 0.0	51.3 0.0	22.4	22.4	0.0	77.6 0.0 0.0
1978	4.4 0.0	35.2 0.0	18.0	18.0	0.0	82.0 0.0 0.0
1979	2.6 0.0	39.7 0.0	14.1	14.1	0.0	85.8 0.1 0.0
1980	32.0 0.0	30.9 1.0	7.5	7.5	0.0	92.0 0.5 0.0
1981	45.4 0.0	21.6 0.7	11.9	11.9	0.0	87.8 0.4 0.0
1982	53.2 0.0	17.0 65.1	45.5	18.6	26.9	53.8 0.7 0.0
1983	63.0 0.0	17.2 62.7	49.2	22.7	26.5	50.1 0.7 0.0
1984	73.9 0.2	16.2 58.2	57.2	27.6	29.6	42.1 0.8 0.0
1985	77.9 0.5	14.4 53.5	72.2	37.5	34.7	27.4 0.4 0.0
1986	82.2 1.0	15.1 56.4	84.8	35.7	49.0	15.0 0.2 2.3
1987	84.1 1.9	15.7 63.5	99.1	49.6	49.5	0.9 0.0 10.6
1988	90.6 1.2	17.2 66.8	100.0	69.9	30.1	0.0 0.0 14.6
1989	91.3 1.4	16.4 71.5	97.4	73.4	24.0	2.6 0.0 15.0
1990	95.0 0.7	20.8 68.8	99.9	74.9	25.0	0.1 0.0 36.0
1991	93.3 1.5	18.4 72.4	100.0	75.7	24.3	0.0 0.0 34.4
1992	94.2 0.7	20.3 66.3	100.0	87.2	12.8	0.0 0.0 29.4
1993	94.6 0.9	19.7 68.9	100.0	86.8	13.2	0.0 0.0 37.9
1994	99.1 0.3	16.4 75.6	100.0	89.5	10.5	0.0 0.0 37.1
1995	95.4 2.6	22.1 77.9	100.0	98.6	1.4	0.0 0.0 65.5
1996	96.7 1.8	20.7 79.3	100.0	100.0	0.0	0.0 0.0 61.9
1997	95.5 2.3	19.8 80.1	99.9	99.9	0.0	0.0 0.1 68.0
1998	94.6 2.7	24.2 75.6	99.0	99.0	0.0	0.0 1.0 57.1
1999	94.4 2.5	26.9 72.0	99.0	99.0	0.0	0.0 1.0 49.4
2000	95.7 1.2	21.2 77.1	98.6	98.6	0.0	0.0 1.4 53.9
2001	95.9 0.7	22.8 74.8	98.6	98.6	0.0	0.0 1.4 52.9
2002	98.2 0.2	19.2 78.9	98.9	98.9	0.0	0.0 1.1 64.5
2003	97.4 1.4	17.6 79.6	98.8	98.8	0.0	0.0 1.2 79.1
2004	97.6 1.4	19.3 76.2	99.4	99.4	0.0	0.0 0.6 89.6

# Appendix H

Table H-7 Characteristics of 1975 to 2004 3500. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1029	0.101	18.2	14.3	17.1	15.5	3500		227 102	15.6	104	0.462	0.0291	27.6		
1976	933	0.076	19.4	15.5	18.0	16.5	3500		231 100	15.8	104	0.447	0.0285	29.2		
1977	724	0.051	20.2	16.1	18.8	17.2	3500	102.4	232 104	15.3	105	0.458	0.0296	30.5	1789	3132
1978	2991	0.207	20.2	15.8	19.2	17.2	3500	111.1	257 119	13.8	111	0.468	0.0341	30.2	1919	3358
1979	2684	0.193	20.2	16.0	18.8	17.2	3500	112.3	252 120	13.7	111	0.477	0.0342	30.1	1934	3385
1980	2147	0.190	20.7	16.3	19.8	17.7	3500	111.3	244 115	14.1	109	0.477	0.0329	31.1	1980	3465
1981	1829	0.173	22.2	17.3	21.4	18.9	3500	113.3	234 113	14.3	108	0.486	0.0321	33.3	2160	3780
1982	1421	0.146	22.4	17.3	21.8	19.1	3500	112.0	237 118	14.0	110	0.504	0.0337	33.8	2170	3798
1983	1669	0.162	22.8	17.5	22.6	19.5	3500	111.8	238 122	13.6	112	0.524	0.0347	34.3	2199	3848
1984	2220	0.158	22.9	17.5	22.8	19.5	3500	109.6	236 127	13.2	113	0.556	0.0362	34.5	2167	3792
1985	2461	0.170	23.4	17.7	23.7	20.0	3500	111.9	228 133	12.7	116	0.603	0.0379	35.1	2246	3930
1986	2760	0.180	24.4	18.3	25.2	20.9	3500	113.5	225 141	12.0	119	0.654	0.0404	36.7	2384	4173
1987	2520	0.170	24.6	18.2	25.9	21.0	3500	114.0	217 147	11.6	121	0.703	0.0420	36.9	2413	4223
1988	2693	0.176	25.4	18.8	26.8	21.7	3500	113.5	212 151	11.4	122	0.732	0.0430	38.2	2485	4349
1989	2688	0.186	25.1	18.6	26.6	21.5	3500	114.2	207 151	11.4	122	0.751	0.0430	37.8	2472	4327
1990	2704	0.214	25.5	18.9	26.9	21.8	3500	113.0	194 150	11.4	122	0.795	0.0429	38.3	2478	4337
1991	2137	0.170	25.4	18.8	26.6	21.7	3500	111.2	195 156	11.1	124	0.821	0.0445	38.1	2428	4250
1992	2822	0.232	25.6	19.0	27.0	21.9	3500	113.6	192 155	11.2	123	0.829	0.0442	38.4	2497	4370
1993	2848	0.216	26.0	19.3	27.4	22.3	3500	114.2	194 156	11.1	124	0.825	0.0447	39.1	2556	4474
1994	2770	0.198	26.1	19.4	27.5	22.3	3500	111.7	191 156	11.1	124	0.837	0.0444	39.2	2506	4385
1995	3628	0.240	26.4	19.5	28.0	22.6	3500	111.9	188 166	10.6	127	0.905	0.0473	39.7	2540	4446
1996	3154	0.240	26.5	19.7	27.9	22.7	3500	111.5	181 164	10.6	127	0.924	0.0470	39.8	2539	4444
1997	3198	0.221	26.7	19.8	28.2	22.9	3500	112.4	181 170	10.4	129	0.957	0.0486	40.2	2580	4515
1998	3996	0.276	27.1	20.1	28.5	23.2	3500	111.5	178 170	10.4	129	0.969	0.0485	40.8	2597	4546
1999	4610	0.303	27.2	20.2	28.5	23.3	3500	110.8	174 170	10.4	129	0.993	0.0486	40.8	2588	4529
2000	4666	0.282	27.1	20.2	28.4	23.2	3500	101.0	175 174	10.2	131	1.013	0.0498	40.8	2364	4137
2001	4315	0.277	27.2	20.3	28.4	23.3	3500	110.6	174 177	10.1	131	1.029	0.0505	41.0	2591	4535
2002	4293	0.267	27.7	20.8	28.6	23.7	3500	111.7	176 183	9.8	134	1.063	0.0523	41.7	2663	4661
2003	3851	0.247	28.1	21.0	29.2	24.1	3500	110.8	174 187	9.7	135	1.091	0.0533	42.3	2687	4703
2004	3939	0.237	28.0	20.9	29.2	24.0	3500	110.8	178 189	9.6	136	1.089	0.0539	42.3	2686	4700

Percent of 3500. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	19.3	0.0	6.5	6.5	0.0	91.6	1.9	0.0
1976	0.0	0.0	17.2	0.0	5.7	5.7	0.0	92.9	1.4	0.0
1977	0.0	0.0	16.2	0.0	6.1	6.1	0.0	91.1	2.7	0.0
1978	0.0	0.0	4.7	6.4	1.4	1.4	0.0	98.1	0.5	0.0
1979	0.0	0.0	4.0	16.9	1.3	1.3	0.0	97.9	0.8	0.0
1980	0.2	0.4	3.1	37.9	2.2	2.2	0.0	96.2	1.7	0.0
1981	0.0	0.5	3.4	84.4	3.0	3.0	0.0	94.5	2.5	0.0
1982	0.5	0.6	6.9	88.4	9.5	5.1	4.4	85.6	4.9	0.0
1983	0.9	0.8	8.7	83.4	14.4	9.1	5.3	83.0	2.6	0.0
1984	8.2	0.2	7.7	88.9	35.6	23.5	12.1	63.0	1.4	0.0
1985	35.2	0.0	8.3	88.8	69.9	37.6	32.3	29.5	0.7	0.0
1986	49.2	0.5	8.6	88.5	80.1	59.4	20.7	19.9	0.1	1.1
1987	64.1	0.4	8.8	87.8	92.1	77.1	15.0	7.4	0.4	3.1
1988	72.8	0.2	7.9	89.7	99.7	88.2	11.4	0.3	0.0	5.0
1989	80.6	0.2	6.8	88.2	100.0	87.8	12.2	0.0	0.0	6.9
1990	84.5	1.9	6.3	89.6	100.0	97.2	2.8	0.0	0.0	12.3
1991	79.7	2.7	7.4	88.2	99.9	96.0	3.9	0.0	0.1	16.1
1992	78.6	1.7	5.2	92.2	99.9	98.0	1.9	0.0	0.1	24.0
1993	87.5	1.6	4.6	93.7	100.0	99.6	0.4	0.0	0.0	25.6
1994	84.8	0.9	7.4	91.5	100.0	100.0	0.0	0.0	0.0	26.0
1995	79.4	1.4	7.1	91.8	100.0	100.0	0.0	0.0	0.0	37.5
1996	89.0	2.5	7.5	91.8	99.8	99.8	0.0	0.0	0.2	46.7
1997	88.8	2.9	6.2	93.8	99.9	99.9	0.0	0.0	0.1	48.5
1998	88.0	2.7	5.7	94.3	100.0	100.0	0.0	0.0	0.0	56.5
1999	90.0	2.6	5.9	93.7	100.0	100.0	0.0	0.0	0.0	59.7
2000	88.4	2.5	6.4	93.0	100.0	100.0	0.0	0.0	0.0	63.6
2001	88.8	1.9	7.1	92.3	99.9	99.9	0.0	0.0	0.1	60.8
2002	88.3	2.6	8.3	91.4	99.7	99.7	0.0	0.0	0.3	63.2
2003	87.0	1.1	8.6	91.3	99.7	99.7	0.0	0.0	0.3	64.0
2004	82.8	2.4	11.7	87.5	99.8	99.8	0.0	0.0	0.2	58.4

# Appendix H

Table H-8 Characteristics of 1975 to 2004 4000. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1089	0.106	15.6	12.4	14.5	13.3	4000		292	130	14.5	110	0.443	0.0324	27.0		
1976	1977	0.160	17.7	14.0	16.5	15.0	4000		280	122	15.4	108	0.433	0.0305	30.4		
1977	3323	0.235	17.9	14.2	16.7	15.2	4000	113.5	293	133	14.2	111	0.453	0.0332	30.6	1739	3477
1978	2235	0.155	18.0	14.1	17.1	15.3	4000	114.9	305	145	13.1	115	0.474	0.0361	30.9	1782	3563
1979	2643	0.190	17.8	14.0	16.7	15.1	4000	119.6	311	147	13.0	116	0.472	0.0367	30.5	1830	3660
1980	1316	0.116	18.8	14.6	18.3	16.1	4000	122.4	302	136	13.9	112	0.453	0.0339	32.6	2003	4007
1981	1312	0.124	20.3	15.5	20.3	17.3	4000	123.2	295	133	14.0	112	0.458	0.0333	35.2	2171	4343
1982	1215	0.125	20.6	15.6	20.9	17.6	4000	126.4	287	135	13.8	112	0.479	0.0338	35.6	2244	4487
1983	1445	0.140	20.3	15.4	20.6	17.4	4000	126.7	287	139	13.4	113	0.490	0.0347	35.0	2211	4422
1984	1702	0.121	20.6	15.5	20.9	17.6	4000	126.3	289	139	13.4	113	0.484	0.0347	35.3	2225	4449
1985	1671	0.116	21.7	16.4	22.3	18.6	4000	125.3	294	148	12.8	116	0.507	0.0370	37.3	2337	4674
1986	918	0.060	22.1	16.6	22.7	18.9	4000	124.9	299	154	12.4	118	0.520	0.0384	37.9	2373	4746
1987	912	0.061	21.7	16.4	22.1	18.6	4000	122.2	294	157	12.3	119	0.551	0.0392	37.3	2288	4576
1988	829	0.054	22.2	16.7	22.9	19.0	4000	125.8	289	160	12.1	120	0.569	0.0400	38.2	2412	4823
1989	860	0.060	23.0	17.2	23.9	19.7	4000	125.1	275	154	12.5	118	0.576	0.0386	39.5	2475	4949
1990	986	0.078	23.0	17.1	24.2	19.7	4000	123.1	263	165	12.0	122	0.643	0.0411	39.6	2433	4866
1991	1114	0.089	23.3	17.2	24.7	19.9	4000	124.9	265	186	10.7	129	0.718	0.0466	40.0	2499	4997
1992	1166	0.096	23.4	17.4	24.8	20.1	4000	123.4	258	198	10.2	133	0.788	0.0494	40.3	2487	4974
1993	1059	0.080	23.6	17.5	24.9	20.2	4000	121.9	253	198	10.3	133	0.805	0.0494	40.5	2468	4936
1994	1342	0.096	23.5	17.4	24.8	20.1	4000	121.5	248	204	10.0	135	0.842	0.0510	40.3	2449	4899
1995	1281	0.085	23.5	17.3	25.2	20.1	4000	121.3	253	219	9.4	140	0.885	0.0546	40.4	2450	4899
1996	1092	0.083	23.9	17.6	25.7	20.5	4000	124.1	249	218	9.5	139	0.885	0.0545	41.1	2549	5099
1997	1259	0.087	23.8	17.5	25.6	20.4	4000	123.1	248	225	9.3	142	0.913	0.0562	40.9	2519	5037
1998	919	0.064	23.8	17.6	25.3	20.4	4000	123.0	247	234	8.9	145	0.963	0.0585	40.9	2515	5029
1999	1179	0.077	24.2	17.8	25.9	20.7	4000	123.5	238	233	9.0	144	1.003	0.0581	41.5	2564	5127
2000	1382	0.083	24.4	18.0	26.0	20.9	4000	120.2	234	240	8.8	147	1.036	0.0599	41.9	2520	5039
2001	1331	0.085	24.6	18.2	26.2	21.1	4000	121.2	227	226	9.2	142	1.021	0.0565	42.4	2568	5137
2002	1256	0.078	24.8	18.4	26.1	21.2	4000	116.6	223	230	9.1	143	1.052	0.0573	42.6	2489	4978
2003	1033	0.066	25.0	18.6	26.4	21.4	4000	116.4	211	232	9.0	144	1.119	0.0581	43.1	2515	5029
2004	1513	0.091	25.3	18.7	26.8	21.7	4000	114.2	216	240	8.8	147	1.129	0.0601	43.6	2496	4993

Percent of 4000. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	7.6	0.0	0.6	0.6	0.0	99.4	0.0	0.0
1976	0.0	0.0	6.9	0.0	0.4	0.4	0.0	99.0	0.6	0.0
1977	0.0	0.0	3.3	0.0	0.5	0.5	0.0	99.1	0.4	0.0
1978	0.0	0.0	3.0	10.4	0.9	0.9	0.0	98.4	0.7	0.0
1979	5.3	0.0	2.2	10.4	2.8	2.8	0.0	94.8	2.3	0.0
1980	10.9	2.3	0.9	40.1	7.4	2.5	4.9	83.0	9.6	0.0
1981	11.1	0.9	0.9	82.8	11.5	1.2	10.3	75.3	13.2	0.0
1982	11.1	1.3	0.0	89.6	20.5	1.8	18.7	70.0	9.4	0.0
1983	12.5	1.3	0.0	94.6	39.9	2.0	38.0	55.7	4.4	0.0
1984	12.8	1.1	0.0	95.8	43.2	2.1	41.1	53.9	2.8	0.0
1985	13.0	0.0	0.1	94.8	45.2	3.8	41.4	52.7	2.0	0.0
1986	0.2	0.7	0.2	92.5	52.7	48.3	4.4	46.8	0.5	1.1
1987	1.1	0.4	4.0	87.9	54.1	50.9	3.2	44.7	1.2	4.5
1988	6.3	0.3	1.6	92.7	77.2	75.0	2.2	22.8	0.0	5.5
1989	8.9	0.0	2.5	92.5	98.0	84.4	13.6	2.0	0.0	4.0
1990	33.2	0.1	1.8	95.5	99.9	95.3	4.6	0.0	0.1	10.5
1991	38.6	0.9	1.9	95.4	99.6	86.8	12.9	0.0	0.4	10.4
1992	41.3	1.9	1.6	97.3	100.0	94.8	5.2	0.0	0.0	15.9
1993	39.2	0.7	0.9	97.1	100.0	95.7	4.3	0.0	0.0	31.9
1994	45.6	0.2	0.8	97.3	100.0	100.0	0.0	0.0	0.0	40.8
1995	44.7	0.6	1.2	96.4	99.6	99.6	0.0	0.0	0.4	48.9
1996	51.6	0.7	1.1	97.1	99.8	99.8	0.0	0.0	0.2	48.3
1997	50.7	0.9	1.0	99.0	99.8	99.8	0.0	0.0	0.2	48.2
1998	50.4	4.4	1.2	98.8	99.6	99.6	0.0	0.0	0.4	48.8
1999	55.1	3.8	1.5	98.5	99.6	99.6	0.0	0.0	0.4	50.9
2000	55.7	4.0	2.1	97.9	100.0	100.0	0.0	0.0	0.0	47.8
2001	51.4	12.9	3.3	96.7	100.0	100.0	0.0	0.0	0.0	51.7
2002	51.9	15.7	2.5	97.3	100.0	100.0	0.0	0.0	0.0	60.6
2003	54.5	16.1	4.1	95.1	99.9	99.9	0.0	0.0	0.1	62.8
2004	61.4	13.9	5.3	94.1	100.0	100.0	0.0	0.0	0.0	66.6

# Appendix H

Table H-9

Characteristics of 1975 to 2004 4500. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1791	0.175	14.3	11.1	13.7	12.2	4500		347	158	13.6	116	0.455	0.0351	27.7		
1976	2223	0.180	15.7	12.3	15.1	13.4	4500		346	157	13.5	115	0.454	0.0349	30.4		
1977	3496	0.248	16.5	13.0	15.6	14.1	4500	118.7	346	157	13.4	115	0.454	0.0348	31.9	1680	3780
1978	1997	0.138	16.3	12.6	16.1	13.9	4500	123.8	356	161	13.1	117	0.453	0.0358	31.6	1739	3912
1979	1527	0.110	16.5	12.8	15.9	14.0	4500	127.6	353	157	13.4	115	0.445	0.0348	31.9	1808	4068
1980	363	0.032	19.0	14.4	19.0	16.2	4500	137.3	350	137	15.1	109	0.394	0.0304	37.3	2273	5115
1981	318	0.030	20.4	15.4	20.9	17.5	4500	137.1	343	127	16.1	106	0.374	0.0282	40.4	2459	5532
1982	183	0.019	21.0	15.8	21.6	17.9	4500	148.3	323	127	16.1	106	0.401	0.0281	41.5	2696	6067
1983	188	0.018	19.9	14.8	20.8	17.0	4500	146.6	311	143	14.4	111	0.463	0.0317	38.7	2512	5651
1984	185	0.013	20.2	15.1	21.0	17.3	4500	152.0	308	148	14.0	113	0.482	0.0329	39.0	2630	5918
1985	104	0.007	21.0	15.6	22.1	18.0	4500	160.2	306	150	13.8	113	0.489	0.0332	40.5	2884	6490
1986	101	0.007	21.5	15.9	22.5	18.4	4500	156.5	308	150	14.0	113	0.484	0.0332	41.6	2910	6549
1987	78	0.005	22.3	16.5	23.7	19.1	4500	160.2	306	140	14.6	110	0.458	0.0311	42.9	3058	6881
1988	105	0.007	22.6	16.9	23.6	19.4	4500	144.8	305	144	14.4	111	0.474	0.0320	43.7	2820	6345
1989	87	0.006	21.8	16.3	22.5	18.6	4500	141.1	306	151	14.1	114	0.494	0.0335	42.2	2667	6001
1990	67	0.005	20.3	15.1	21.3	17.4	4500	130.1	322	178	12.6	122	0.555	0.0396	39.7	2336	5256
1991	72	0.006	20.9	15.4	22.2	17.9	4500	133.6	312	201	11.3	129	0.648	0.0447	40.8	2480	5581
1992	113	0.009	22.1	16.1	24.0	18.9	4500	137.2	334	191	11.6	126	0.586	0.0423	42.8	2633	5924
1993	84	0.006	22.1	16.0	24.5	19.0	4500	141.3	339	187	11.8	124	0.567	0.0415	42.8	2704	6085
1994	88	0.006	22.4	16.4	24.2	19.2	4500	136.8	344	255	9.0	145	0.747	0.0566	43.4	2659	5984
1995	110	0.007	22.4	16.5	24.1	19.2	4500	127.6	310	257	9.0	146	0.867	0.0571	43.4	2471	5559
1996	96	0.007	22.9	16.7	24.9	19.6	4500	131.5	323	260	8.9	147	0.826	0.0577	44.2	2594	5836
1997	37	0.003	22.2	16.5	23.2	19.0	4500	109.2	257	271	8.7	150	1.057	0.0600	42.9	2097	4719
1998	31	0.002	22.0	16.4	23.1	18.8	4500	100.4	272	287	8.3	155	1.059	0.0635	42.5	1913	4305
1999	25	0.002	22.1	16.5	23.1	18.9	4500	93.9	264	276	8.6	152	1.058	0.0612	42.7	1797	4044
2000	67	0.004	21.9	16.4	22.8	18.8	4500	114.9	281	287	8.2	155	1.022	0.0637	42.3	2168	4879
2001	78	0.005	22.0	16.4	23.0	18.8	4500	117.4	270	283	8.3	154	1.067	0.0628	42.5	2217	4989
2002	96	0.006	22.3	16.7	23.1	19.1	4500	116.5	274	266	8.9	149	0.988	0.0591	43.0	2240	5040
2003	364	0.023	22.7	16.8	24.1	19.5	4500	126.3	279	251	9.3	144	0.905	0.0557	43.9	2472	5562
2004	350	0.021	22.6	16.8	23.8	19.4	4500	131.8	271	250	9.3	144	0.934	0.0555	43.7	2562	5763

Percent of 4500. lb. Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.9	0.0	0.6	0.0	1.6	1.6	0.0	98.4	0.0	0.0
1976	2.0	0.0	0.1	0.0	2.3	2.3	0.0	97.7	0.0	0.0
1977	1.3	0.0	0.1	0.0	1.6	1.6	0.0	98.4	0.0	0.0
1978	2.7	0.0	0.0	12.9	3.1	3.1	0.0	95.3	1.5	0.0
1979	4.4	0.0	0.0	9.3	3.4	3.4	0.0	91.1	5.5	0.0
1980	7.5	0.0	0.0	54.2	0.0	0.0	0.0	71.3	28.7	0.0
1981	8.6	0.0	0.0	61.7	29.7	0.0	29.7	26.1	44.2	0.0
1982	6.3	0.0	0.0	99.8	0.0	0.0	0.0	54.7	45.3	0.0
1983	1.4	0.0	0.0	100.0	0.0	0.0	0.0	87.7	12.3	0.0
1984	0.6	0.0	0.0	100.0	0.0	0.0	0.0	95.8	4.2	0.0
1985	0.1	0.0	0.0	100.0	0.0	0.0	0.0	98.9	1.1	0.0
1986	0.0	0.0	0.0	91.2	8.7	8.7	0.0	91.3	0.0	0.0
1987	0.0	0.0	0.0	100.0	0.1	0.1	0.0	99.9	0.0	0.0
1988	0.0	0.0	0.0	100.0	2.9	2.9	0.0	97.1	0.0	0.0
1989	0.0	0.0	0.0	96.2	8.0	8.0	0.0	92.0	0.0	0.0
1990	0.0	0.0	0.0	84.4	51.1	20.5	30.5	48.9	0.0	4.2
1991	0.0	0.0	0.7	82.1	100.0	26.2	73.8	0.0	0.0	11.6
1992	0.0	0.0	0.2	89.6	100.0	12.2	87.8	0.0	0.0	5.0
1993	0.0	0.0	0.2	96.0	100.0	10.6	89.4	0.0	0.0	9.3
1994	0.0	0.0	0.2	93.6	100.0	100.0	0.0	0.0	0.0	8.9
1995	0.0	0.5	0.5	82.4	100.0	100.0	0.0	0.0	0.0	35.3
1996	0.0	0.4	0.4	90.7	100.0	100.0	0.0	0.0	0.0	23.5
1997	0.0	0.0	0.1	99.9	100.0	100.0	0.0	0.0	0.0	96.8
1998	0.0	0.0	0.2	99.8	100.0	100.0	0.0	0.0	0.0	94.4
1999	0.0	0.0	0.1	99.9	100.0	100.0	0.0	0.0	0.0	61.2
2000	0.0	1.0	0.3	99.7	100.0	100.0	0.0	0.0	0.0	94.9
2001	0.0	11.3	1.1	98.9	100.0	100.0	0.0	0.0	0.0	32.6
2002	0.0	6.9	0.7	99.3	100.0	100.0	0.0	0.0	0.0	19.7
2003	0.0	4.1	0.3	99.7	100.0	100.0	0.0	0.0	0.0	7.7
2004	9.2	6.5	0.3	99.7	100.0	100.0	0.0	0.0	0.0	26.0

# Appendix H

Table H-10

Characteristics of 1975 to 2004 5000. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1505	0.147	12.9	10.0	12.5	11.0	5000		388	166	14.0	115	0.428	0.0332	27.8		
1976	1494	0.121	14.6	11.5	13.9	12.5	5000		378	166	13.9	115	0.440	0.0332	31.2		
1977	1051	0.074	14.1	10.9	13.8	12.1	5000	129.7	387	175	13.3	117	0.453	0.0350	30.3	1571	3927
1978	477	0.033	14.6	11.1	14.5	12.4	5000	132.3	403	179	13.1	118	0.445	0.0358	31.3	1663	4157
1979	182	0.013	14.4	11.1	14.2	12.3	5000	126.5	396	169	13.7	115	0.426	0.0338	31.3	1587	3968
1980	2	0.000	12.5	9.9	11.9	10.7	5000	121.9	382	156	14.6	112	0.408	0.0297	26.8	1320	3299
1981	2	0.000	11.7	9.3	11.1	10.0	5000	122.2	387	156	14.6	112	0.400	0.0297	25.1	1231	3078
1982	2	0.000	11.2	8.8	10.6	9.5	5000	121.4	378	176	13.7	117	0.480	0.0337	23.8	1160	2900
1983	1	0.000	11.5	9.1	10.9	9.8	5000	126.4	373	157	14.7	112	0.424	0.0284	24.6	1246	3115
1984	2	0.000	11.2	8.8	10.6	9.5	5000	122.1	374	176	13.7	117	0.484	0.0330	23.9	1171	2928
1985	1	0.000	10.9	8.5	10.3	9.2	5000	113.5	394	187	12.9	121	0.490	0.0354	23.1	1050	2626
1986	1	0.000	10.7	8.4	10.2	9.1	5000	114.2	378	205	12.2	125	0.572	0.0396	22.8	1042	2604
1987	1	0.000	11.4	9.1	10.6	9.7	5000	113.0	410	191	12.4	122	0.463	0.0336	24.4	1101	2753
1988	1	0.000	12.3	9.6	11.8	10.5	5000	112.0	408	207	11.6	126	0.508	0.0400	26.3	1179	2948
1989	1	0.000	12.4	9.7	11.8	10.5	5000	112.9	410	206	11.6	126	0.501	0.0396	26.4	1192	2981
1990	0	0.000	10.9	8.4	10.8	9.3	5000	95.9	326	240	10.3	135	0.500	0.0001	23.3	894	2236
1992	10	0.001	17.3	13.3	17.1	14.8	5000	126.0	283	297	9.1	152	1.041	0.0592	37.5	1888	4720
1993	16	0.001	18.9	14.5	18.8	16.1	5000	125.8	247	263	9.8	142	1.072	0.0524	40.6	2042	5105
1994	11	0.001	20.0	15.1	20.5	17.1	5000	124.6	256	274	9.4	145	1.073	0.0545	43.1	2147	5368
1995	16	0.001	19.8	15.1	19.9	16.9	5000	119.7	280	291	9.1	150	1.033	0.0581	42.8	2056	5141
1996	7	0.001	19.9	14.7	21.2	17.1	5000	125.5	286	303	8.6	153	1.058	0.0602	42.8	2149	5373
1997	9	0.001	20.2	14.9	21.4	17.3	5000	125.1	288	304	8.6	154	1.057	0.0606	43.3	2170	5426
1998	6	0.000	20.2	15.0	21.2	17.3	5000	126.1	283	299	8.7	152	1.059	0.0595	43.3	2185	5461
1999	8	0.001	19.7	14.6	20.6	16.8	5000	124.0	290	306	8.5	154	1.060	0.0608	42.3	2102	5256
2000	1	0.000	18.3	13.3	19.9	15.7	5000	120.1	325	324	8.1	159	0.995	0.0633	39.2	1884	4709
2001	1	0.000	18.2	13.3	19.8	15.6	5000	120.1	327	325	8.0	160	0.992	0.0626	39.0	1874	4684
2002	0	0.000	19.1	14.7	18.8	16.3	5000	121.2	303	302	8.5	153	0.900	0.0000	40.8	1978	4944
2003	1	0.000	19.2	14.0	20.8	16.4	5000	126.3	331	328	9.1	160	0.958	0.0647	41.3	2081	5203
2004	33	0.002	21.7	16.4	21.9	18.5	5000	163.7	219	255	9.9	140	1.163	0.0510	46.3	3036	7591

Percent of 5000. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	3.3	0.0	0.0	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1978	4.9	0.0	0.0	14.1	0.4	0.4	0.0	98.7	0.9	0.0
1979	0.0	0.0	0.0	0.0	0.9	0.9	0.0	90.0	9.1	0.0
1980	0.0	0.0	0.0	0.0	6.7	6.7	0.0	93.3	0.0	0.0
1981	0.0	0.0	0.0	0.0	100.0	42.6	57.4	0.0	0.0	0.0
1982	0.0	0.0	0.0	14.2	85.8	44.2	41.5	14.2	0.0	0.0
1983	0.0	0.0	0.0	6.5	93.5	19.3	74.2	6.5	0.0	0.0
1984	0.0	0.0	0.0	15.8	84.2	37.4	46.8	15.8	0.0	0.0
1985	0.0	0.0	0.0	16.3	83.7	83.7	0.0	16.3	0.0	0.0
1986	0.0	0.0	0.0	30.6	69.4	69.4	0.0	30.6	0.0	0.0
1987	0.0	0.0	0.0	1.8	100.0	100.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	4.9	100.0	100.0	0.0	0.0	0.0	0.0
1989	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1992	0.0	0.0	0.0	0.0	89.1	89.1	0.0	0.0	10.9	89.1
1993	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	93.5
1994	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1995	0.0	0.0	0.0	0.0	95.8	95.8	0.0	0.0	4.2	100.0
1996	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1997	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	45.8
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	1.1
2002	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2003	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	60.5
2004	0.0	96.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	98.6

# Appendix H

Table H-11 Characteristics of 1975 to 2004 5500. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	828	0.081	12.2	9.4	11.8	10.4	5500		458	208	12.6	123	0.454	0.0378	28.6		
1976	934	0.076	13.3	10.4	12.7	11.3	5500		460	203	12.7	121	0.443	0.0370	31.2		
1977	298	0.021	12.6	9.6	12.6	10.8	5500	131.8	447	194	13.2	119	0.434	0.0353	29.7	1421	3908
1978	134	0.009	12.8	9.7	12.9	10.9	5500	130.7	445	191	13.3	118	0.429	0.0347	30.1	1437	3951
1979	2	0.000	11.0	8.8	10.1	9.4	5500	112.7	417	174	14.4	114	0.415	0.0302	25.8	1060	2916
1980	0	0.000	10.7	8.6	9.8	9.1	5500	100.7	412	170	14.7	113	0.400	0.0235	25.2	922	2534
1981	0	0.000	10.5	8.3	9.9	8.9	5500	98.8	412	170	14.7	113	0.392	0.0142	24.6	888	2442
1982	0	0.000	10.1	8.0	9.5	8.6	5500	92.5	412	170	14.7	113	0.395	0.0175	23.7	798	2194
1983	0	0.000	10.9	8.5	10.7	9.3	5500	92.3	412	170	14.7	113	0.396	0.0248	25.7	862	2370
1984	0	0.000	11.0	8.5	10.7	9.3	5500	92.6	412	170	14.7	113	0.400	0.0217	25.7	866	2382
1985	0	0.000	11.0	8.5	10.8	9.4	5500	92.5	412	170	14.7	113	0.404	0.0259	25.7	866	2382
1986	0	0.000	11.0	8.5	10.7	9.3	5500	92.4	412	170	14.7	113	0.409	0.0285	25.7	863	2374
1987	0	0.000	10.9	8.6	10.3	9.3	5500	92.0	412	187	13.7	117	0.442	0.0276	25.7	858	2360
1988	0	0.000	12.2	9.5	11.5	10.3	5500	91.3	412	205	12.6	122	0.493	0.0315	28.5	945	2598
1989	0	0.000	12.5	9.7	12.0	10.6	5500	103.8	412	259	10.7	136	0.626	0.0443	29.3	1109	3049
1990	1	0.000	13.1	10.2	12.7	11.2	5500	107.2	412	250	11.0	134	0.605	0.0444	30.7	1197	3293
1991	1	0.000	13.2	10.3	12.7	11.2	5500	107.5	412	237	11.4	131	0.574	0.0410	30.9	1205	3315
1992	0	0.000	14.1	10.6	14.7	12.1	5500	107.2	412	258	10.7	136	0.615	0.0312	33.3	1298	3569
1993	1	0.000	15.6	11.9	15.5	13.3	5500	126.5	374	290	10.4	144	0.774	0.0496	36.9	1714	4712
1994	3	0.000	17.7	13.4	17.8	15.1	5500	141.3	356	262	10.5	137	0.734	0.0465	41.7	2157	5932
1995	3	0.000	18.2	13.9	18.3	15.6	5500	143.1	354	252	10.7	134	0.711	0.0449	43.0	2247	6178
1996	3	0.000	17.8	13.8	17.4	15.2	5500	12.5	357	261	10.4	137	0.733	0.0465	41.9	168	461
1997	1	0.000	18.1	13.4	19.2	15.5	5500	149.9	315	312	9.0	150	1.007	0.0539	43.1	2392	6579
1998	2	0.000	17.0	12.1	19.8	14.7	5500	142.7	287	303	9.2	148	1.060	0.0532	40.3	2098	5771
1999	0	0.000	14.9	11.1	15.7	12.8	5500	98.1	412	349	8.2	160	0.823	0.0455	35.1	1251	3441
2000	2	0.000	18.1	13.6	18.5	15.5	5500	160.0	284	279	9.8	141	0.983	0.0504	42.6	2483	6828
2001	0	0.000	16.1	12.2	16.2	13.8	5500	123.3	328	322	8.8	153	0.975	0.0380	37.8	1696	4665
2002	0	0.000	16.1	12.2	16.2	13.8	5500	120.5	328	322	8.8	153	0.960	0.0400	37.8	1658	4561
2004	43	0.003	19.1	15.0	18.2	16.3	5500	143.6	246	255	10.7	135	1.039	0.0463	44.8	2339	6432

Percent of 5500. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	8.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	7.4	0.0	0.0	0.0	2.9	2.9	0.0	97.1	0.0	0.0
1977	15.9	0.0	0.0	0.0	3.1	3.1	0.0	96.9	0.0	0.0
1978	33.7	0.0	0.0	0.0	30.0	30.0	0.0	70.0	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	0.0	5.0	5.0	0.0	95.0	0.0	0.0
1981	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1982	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1985	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1989	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1991	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1992	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	56.9	100.0	71.8	28.2	0.0	0.0	43.1
1994	0.0	0.0	0.0	92.4	100.0	100.0	0.0	0.0	0.0	7.6
1995	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1997	73.2	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	73.2
1998	94.1	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	94.1
1999	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	92.1	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	92.2
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	1.1	98.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	3.9



# Appendix H

Table H-12

Characteristics of 1975 to 2004 6000. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1985	0	0.000	10.1	8.0	9.5	8.6	6000	157.5	412	170	15.7	110	0.250	0.0000	25.9	1358	4075
1986	0	0.000	10.1	8.0	9.5	8.6	6000	157.5	412	170	15.7	110	0.368	0.0000	25.9	1358	4075
1987	0	0.000	10.4	8.4	9.6	8.9	6000	157.5	412	173	15.5	111	0.375	0.0000	26.6	1399	4197
1988	0	0.000	11.8	9.4	10.9	10.1	6000	157.5	412	205	13.5	119	0.000	0.0000	30.2	1584	4753
1993	1	0.000	17.6	13.6	17.2	15.0	6000	145.5	350	175	15.3	111	0.500	0.0285	45.0	2183	6550
1994	0	0.000	13.9	10.4	14.6	11.9	6000	90.6	412	241	11.9	128	0.556	0.0278	35.7	1079	3236
1995	0	0.000	13.9	10.3	14.7	11.9	6000	90.6	412	280	10.7	137	0.645	0.0323	35.7	1079	3236
1996	0	0.000	14.9	11.1	15.6	12.7	6000	88.9	412	350	8.8	155	0.845	0.0476	38.2	1131	3394
1997	0	0.000	14.9	11.1	15.6	12.7	6000	88.9	412	350	8.8	155	0.840	0.0494	38.2	1131	3394
1998	0	0.000	14.9	11.1	15.6	12.7	6000	88.9	412	350	8.8	155	0.848	0.0505	38.2	1131	3394
1999	2	0.000	19.3	14.3	20.3	16.5	6000	145.8	279	300	10.0	142	1.074	0.0496	49.5	2405	7215
2000	0	0.000	15.0	11.1	15.6	12.8	6000	112.8	412	350	8.8	155	0.847	0.0561	38.4	1444	4331
2001	3	0.000	17.6	13.2	18.1	15.0	6000	168.6	303	289	10.3	140	0.960	0.0471	45.3	2575	7725
2002	2	0.000	17.6	13.2	18.2	15.1	6000	15.4	296	294	10.3	141	0.989	0.0483	45.4	191	574
2003	2	0.000	17.6	13.0	18.6	15.1	6000	152.4	302	304	10.1	143	0.999	0.0493	45.7	2349	7048
2004	1	0.000	16.3	12.2	17.0	14.0	6000	133.7	335	348	9.2	155	1.029	0.0562	42.8	1939	5816

Percent of 6000. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1985	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	100.0	100.0	0.5	99.5	0.0	0.0	0.0
1994	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1997	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	81.6	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	81.6
2002	86.8	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	86.8
2003	82.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	82.9
2004	58.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	58.0

# Appendix H

Table H-13

Characteristics of 1975 to 2004 6500. lb. Cars

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	----> ADJ HWY	55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1994	0	0.000	13.6	10.2	14.1	11.6	6500	140.2	412	241	12.7	125	0.250	0.0000	37.8	1631	5301
1998	0	0.000	13.8	10.3	14.5	11.8	6500	140.1	412	300	10.6	139	0.667	0.0000	38.4	1656	5382
2000	0	0.000	15.2	11.3	15.9	13.0	6500	88.9	412	325	10.0	144	0.784	0.0412	42.3	1157	3761
2001	0	0.000	15.2	11.3	15.9	13.0	6500	88.9	412	377	8.9	157	0.910	0.0552	42.3	1157	3761
2002	0	0.000	15.2	11.3	15.9	13.0	6500	88.9	412	325	10.0	144	0.783	0.0435	42.3	1157	3761
2003	0	0.000	15.2	11.3	15.9	13.0	6500	88.9	412	325	10.0	144	0.780	0.0440	42.3	1157	3761
2004	1	0.000	16.2	11.9	17.3	13.9	6500	127.2	336	543	6.6	196	1.615	0.0828	45.1	1765	5737

Percent of 6500. lb. Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1994	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2003	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix H

Table H-14 Characteristics of 1975 to 2004 2250. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1983	0	0.000	39.0	33.5	32.3	32.9	2250	97	52	18.3	93	0.532	0.0200	37.2
1984	2	0.000	38.6	33.5	31.7	32.6	2250	97	52	18.3	93	0.535	0.0225	36.9

Percent of 2250. lb. Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1983	100.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1984	100.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0

# Appendix H

Table H-15 Characteristics of 1975 to 2004 2750. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1984	14	0.001	29.8	24.0	26.9	25.3	2750	122	88	14.1	105	0.721	0.0316	34.8
1985	8	0.001	29.8	23.5	28.2	25.4	2750	122	88	14.0	105	0.721	0.0314	35.0
1986	5	0.000	29.4	23.7	26.8	25.0	2750	122	88	14.1	105	0.720	0.0315	34.5
1987	4	0.000	29.3	23.6	26.6	24.9	2750	122	88	14.1	105	0.721	0.0311	34.3

Percent of 2750. lb. Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1984	100.0	0.0	42.3	57.7	0.0	0.0	0.0	100.0	0.0	0.0
1985	100.0	0.0	77.4	22.6	0.0	0.0	0.0	100.0	0.0	0.0
1986	100.0	0.0	52.5	47.5	0.0	0.0	0.0	100.0	0.0	0.0
1987	100.0	0.0	47.8	52.2	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix H

Table H-16

Characteristics of 1975 to 2004 3000. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	0	0.000	21.2	16.1	21.6	18.2	3000	109	67	18.6	95	0.429	0.0000	27.2
1984	31	0.002	25.7	20.4	23.8	21.8	3000	134	92	14.6	105	0.691	0.0305	33.0
1985	56	0.004	26.1	21.1	23.7	22.2	3000	128	94	14.5	105	0.733	0.0310	33.4
1986	50	0.003	26.9	21.4	25.0	22.9	3000	128	92	14.6	104	0.717	0.0304	34.5
1987	59	0.004	26.6	21.4	24.1	22.6	3000	130	96	14.2	106	0.742	0.0318	33.9
1988	17	0.001	27.4	21.9	25.2	23.3	3000	124	97	14.0	107	0.781	0.0318	35.0
1989	13	0.001	26.3	21.1	24.2	22.4	3000	124	97	14.0	107	0.782	0.0318	33.6
1990	5	0.000	26.4	20.9	24.8	22.4	3000	137	116	12.4	114	0.840	0.0370	33.7
1991	8	0.001	26.2	21.1	24.0	22.3	3000	122	96	14.1	106	0.788	0.0311	33.4
1992	23	0.002	28.3	22.1	27.1	24.1	3000	119	114	12.4	113	0.963	0.0373	36.3
1993	11	0.001	28.5	22.1	27.5	24.3	3000	120	119	12.0	115	0.993	0.0393	36.5
1994	5	0.000	28.4	21.9	27.7	24.2	3000	127	124	11.6	118	0.980	0.0408	36.5
1995	4	0.000	27.7	21.4	27.2	23.7	3000	130	127	11.4	118	0.974	0.0418	35.7
1996	0	0.000	27.7	21.3	27.2	23.6	3000	134	127	11.4	119	0.949	0.0366	35.6

Percent of 3000. lb. Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	71.4	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1984	69.4	0.0	32.4	23.6	30.6	0.0	0.0	69.4	0.0	0.0
1985	51.2	5.3	22.2	50.3	43.5	0.0	0.0	56.5	0.0	0.0
1986	43.5	26.9	62.2	32.2	29.6	29.6	0.0	70.4	0.0	0.0
1987	38.2	14.4	31.7	68.3	69.3	69.3	0.0	30.7	0.0	0.0
1988	68.9	19.5	41.5	58.5	100.0	100.0	0.0	0.0	0.0	0.0
1989	73.5	18.0	35.0	65.0	100.0	99.3	0.7	0.0	0.0	0.0
1990	71.5	8.5	57.2	42.8	100.0	97.2	2.8	0.0	0.0	0.0
1991	78.8	21.2	32.2	67.8	100.0	100.0	0.0	0.0	0.0	0.0
1992	99.5	0.5	35.3	64.7	100.0	100.0	0.0	0.0	0.0	0.0
1993	100.0	0.0	13.3	86.7	100.0	100.0	0.0	0.0	0.0	73.8
1994	51.0	49.0	21.4	78.6	100.0	100.0	0.0	0.0	0.0	46.2
1995	40.5	59.5	16.4	83.6	100.0	100.0	0.0	0.0	0.0	100.0
1996	100.0	0.0	13.2	86.8	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-17

Characteristics of 1975 to 2004 3500. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	17	0.002	19.0	14.5	18.9	16.2	3500	214	98	15.9	103	0.465	0.0276	28.4
1976	12	0.001	19.5	15.4	18.3	16.6	3500	211	96	16.3	102	0.459	0.0270	29.1
1977	9	0.001	20.2	16.4	18.2	17.1	3500	201	92	16.8	101	0.470	0.0260	30.1
1978	11	0.001	19.4	15.6	17.7	16.5	3500	200	101	15.8	104	0.509	0.0285	28.9
1979	8	0.001	18.7	14.8	17.6	16.0	3500	120	67	20.9	92	0.558	0.0188	28.0
1980	17	0.002	19.0	14.9	17.9	16.1	3500	151	77	19.3	95	0.523	0.0215	28.3
1981	16	0.001	19.3	15.5	17.7	16.4	3500	172	81	18.6	97	0.490	0.0227	28.8
1982	25	0.003	20.9	16.9	18.9	17.8	3500	179	81	18.7	97	0.473	0.0231	31.9
1983	10	0.001	19.5	15.5	18.2	16.6	3500	119	69	20.5	93	0.581	0.0192	29.4
1984	164	0.012	24.2	19.3	22.4	20.6	3500	139	96	16.1	102	0.694	0.0275	36.3
1985	292	0.020	23.5	18.7	21.9	20.0	3500	154	102	15.4	105	0.673	0.0292	35.2
1986	320	0.021	24.3	19.2	22.8	20.7	3500	152	102	15.3	105	0.674	0.0292	36.3
1987	329	0.022	24.1	19.0	22.9	20.6	3500	162	120	13.8	111	0.735	0.0342	36.0
1988	262	0.017	24.5	19.1	23.5	20.8	3500	166	123	13.5	112	0.736	0.0352	36.6
1989	263	0.018	24.3	19.1	22.9	20.7	3500	159	120	13.9	111	0.753	0.0342	36.2
1990	213	0.017	25.2	19.6	24.3	21.5	3500	170	129	13.0	114	0.758	0.0367	37.6
1991	63	0.005	25.3	19.8	24.0	21.5	3500	161	109	14.9	107	0.673	0.0310	37.7
1992	84	0.007	25.7	20.2	24.4	21.9	3500	156	110	14.6	107	0.707	0.0312	38.3
1993	220	0.017	25.3	19.5	24.7	21.6	3500	176	133	12.6	116	0.755	0.0380	37.8
1994	144	0.010	24.7	19.2	23.7	21.0	3500	173	131	12.8	115	0.755	0.0373	36.8
1995	237	0.016	25.1	19.5	24.3	21.4	3500	171	137	12.2	117	0.807	0.0390	37.5
1996	32	0.002	27.0	20.7	26.7	23.0	3500	145	144	11.6	120	1.013	0.0410	40.5
1997	33	0.002	24.2	18.8	23.2	20.6	3500	145	133	12.4	115	0.927	0.0379	36.1
1998	16	0.001	27.0	20.9	26.3	23.0	3500	138	150	11.3	122	1.087	0.0428	40.3
1999	1	0.000	26.9	21.0	25.7	22.9	3500	138	150	11.3	122	1.087	0.0427	40.0

Percent of 3500. lb. Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	18.7	0.0	6.1	0.0	0.0	93.9	0.0	0.0
1976	0.0	0.0	24.4	0.0	13.3	0.0	0.0	86.7	0.0	0.0
1977	0.0	0.0	28.8	0.0	23.2	0.0	0.0	76.8	0.0	0.0
1978	0.0	0.0	28.4	0.0	23.4	0.0	0.0	76.6	0.0	0.0
1979	0.0	0.0	81.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1980	0.0	0.0	62.8	25.0	70.1	0.0	0.0	29.9	0.0	0.0
1981	0.0	0.0	55.9	34.3	50.6	0.0	0.0	49.4	0.0	0.0
1982	0.0	0.0	62.9	32.5	25.1	0.0	0.0	59.9	15.0	0.0
1983	0.0	0.0	79.6	0.0	96.9	0.0	0.0	0.0	3.1	0.0
1984	68.8	0.0	27.1	15.7	31.2	0.0	0.0	68.8	0.0	0.0
1985	76.3	0.0	15.2	14.6	16.7	0.0	0.0	83.3	0.0	0.0
1986	71.0	0.0	9.6	23.5	24.7	22.0	2.7	75.3	0.0	0.0
1987	75.9	1.8	9.6	52.8	58.9	50.5	8.5	41.1	0.0	0.0
1988	80.7	1.7	7.3	63.9	100.0	63.5	36.5	0.0	0.0	0.0
1989	84.5	1.3	5.6	30.6	100.0	53.6	46.4	0.0	0.0	0.0
1990	92.4	1.3	5.0	90.9	100.0	72.1	27.9	0.0	0.0	0.0
1991	81.4	3.6	4.1	95.9	100.0	28.9	71.1	0.0	0.0	0.0
1992	85.5	7.3	8.6	91.4	100.0	35.5	64.5	0.0	0.0	0.0
1993	96.5	0.1	2.9	97.1	100.0	80.2	19.8	0.0	0.0	0.0
1994	96.5	0.7	2.8	97.2	100.0	73.4	26.6	0.0	0.0	0.0
1995	95.4	0.8	0.2	99.8	100.0	87.5	12.5	0.0	0.0	14.3
1996	76.3	0.4	0.1	99.9	100.0	100.0	0.0	0.0	0.0	75.5
1997	73.1	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	73.1
1998	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-18

Characteristics of 1975 to 2004 4000. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	262	0.026	14.0	11.2	12.9	11.9	4000	310	136	14.0	112	0.434	0.0339	24.5
1976	293	0.024	14.1	11.2	13.1	12.0	4000	323	142	13.5	114	0.437	0.0354	24.7
1977	262	0.019	16.1	13.0	14.6	13.7	4000	323	148	12.9	116	0.457	0.0370	27.7
1978	310	0.021	15.6	12.7	14.1	13.3	4000	321	142	13.2	115	0.443	0.0355	27.0
1979	83	0.006	16.5	13.5	14.8	14.0	4000	275	128	14.3	110	0.468	0.0318	28.4
1980	90	0.008	18.4	14.6	17.0	15.6	4000	263	121	15.0	108	0.466	0.0301	31.4
1981	81	0.008	18.7	14.9	17.4	15.9	4000	262	120	15.2	107	0.462	0.0298	32.1
1982	85	0.009	18.8	15.0	17.4	16.0	4000	264	117	15.8	106	0.445	0.0290	32.4
1983	102	0.010	18.8	15.0	17.5	16.0	4000	261	112	16.1	105	0.433	0.0278	32.4
1984	160	0.011	18.0	14.3	16.8	15.3	4000	276	116	15.5	106	0.426	0.0288	31.0
1985	184	0.013	19.8	15.6	18.6	16.8	4000	272	137	13.7	113	0.509	0.0340	34.1
1986	316	0.021	21.1	16.4	20.6	18.0	4000	232	134	13.9	112	0.590	0.0334	36.1
1987	401	0.027	21.7	16.7	21.2	18.5	4000	222	148	12.8	117	0.689	0.0371	37.1
1988	559	0.037	22.2	17.0	21.9	18.9	4000	214	149	12.6	117	0.717	0.0374	38.0
1989	674	0.047	22.5	17.2	22.2	19.2	4000	207	145	12.9	115	0.722	0.0363	38.4
1990	684	0.054	22.2	17.1	21.9	19.0	4000	199	143	13.2	115	0.722	0.0356	38.1
1991	686	0.055	22.5	17.4	22.0	19.2	4000	194	144	13.0	115	0.756	0.0361	38.6
1992	758	0.062	22.6	17.4	22.3	19.3	4000	198	146	12.9	116	0.745	0.0365	38.7
1993	826	0.063	22.6	17.3	22.7	19.3	4000	196	149	12.6	117	0.768	0.0373	38.7
1994	836	0.060	22.8	17.4	22.7	19.4	4000	202	150	12.6	117	0.752	0.0376	39.0
1995	990	0.065	22.9	17.3	23.3	19.5	4000	217	152	12.5	118	0.713	0.0380	39.1
1996	956	0.073	23.5	17.9	23.6	20.1	4000	201	166	11.7	122	0.828	0.0415	40.2
1997	792	0.055	23.4	17.8	23.5	20.0	4000	196	164	11.8	121	0.835	0.0409	40.1
1998	1116	0.077	23.8	17.9	24.3	20.3	4000	202	174	11.2	125	0.863	0.0435	40.7
1999	822	0.054	23.9	18.0	24.5	20.4	4000	198	168	11.5	123	0.857	0.0420	40.9
2000	947	0.057	24.2	18.2	24.7	20.7	4000	194	171	11.3	124	0.891	0.0427	41.4
2001	479	0.031	24.5	18.5	24.9	21.0	4000	195	183	10.7	128	0.950	0.0459	42.0
2002	451	0.028	24.9	18.8	25.5	21.3	4000	196	186	10.6	129	0.956	0.0464	42.7
2003	472	0.030	25.4	19.1	26.1	21.7	4000	199	185	10.6	129	0.934	0.0462	43.5
2004	261	0.016	25.1	18.8	26.0	21.5	4000	201	184	10.7	128	0.921	0.0460	43.0

Percent of 4000. lb. Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	0.0	34.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	0.0	30.9	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	0.0	23.4	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	0.0	22.6	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	0.0	34.8	29.1	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	0.0	41.3	43.7	4.1	0.0	0.0	95.9	0.0 0.0
1981	0.8	0.0	33.7	50.9	4.0	0.0	0.0	96.0	0.0 0.0
1982	0.0	0.0	23.9	55.3	3.5	0.0	0.0	94.1	2.3 0.0
1983	0.0	0.0	28.5	40.0	3.3	0.0	0.0	96.7	0.0 0.0
1984	0.0	0.0	21.2	29.8	3.4	0.0	0.0	96.6	0.0 0.0
1985	0.2	0.0	10.2	58.0	3.4	0.2	0.0	96.6	0.0 0.0
1986	0.1	0.0	6.5	86.3	72.2	21.1	51.1	27.8	0.0 0.0
1987	7.6	1.7	4.7	90.3	95.0	48.9	46.1	5.0	0.0 0.0
1988	33.5	0.2	2.6	93.8	100.0	60.7	39.3	0.0	0.0 0.0
1989	30.6	0.4	2.4	96.5	100.0	67.7	32.3	0.0	0.0 0.0
1990	57.0	10.0	0.9	97.1	100.0	69.4	30.6	0.0	0.0 0.0
1991	49.2	12.6	1.2	98.4	100.0	79.7	20.3	0.0	0.0 0.0
1992	60.7	1.8	0.6	99.4	100.0	85.2	14.8	0.0	0.0 0.0
1993	59.4	1.1	1.1	98.9	100.0	90.4	9.6	0.0	0.0 0.0
1994	71.7	3.2	0.2	99.8	100.0	90.1	9.9	0.0	0.0 1.9
1995	79.7	10.1	0.0	100.0	100.0	96.0	4.0	0.0	0.0 1.7
1996	90.3	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 4.2
1997	87.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 5.2
1998	96.2	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 11.6
1999	95.7	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 15.9
2000	95.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 25.7
2001	96.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 31.5
2002	95.7	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 33.0
2003	96.8	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 19.7
2004	95.6	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 16.5

# Appendix H

Table H-19

Characteristics of 1975 to 2004 4500. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	165	0.016	11.6	9.5	10.3	9.8	4500	333	155	13.6	115	0.464	0.0343	22.2
1976	188	0.015	13.3	10.7	12.3	11.3	4500	330	153	13.8	114	0.462	0.0339	25.7
1977	222	0.016	13.5	11.0	12.0	11.4	4500	342	157	13.5	115	0.458	0.0347	25.9
1978	289	0.020	13.0	10.7	11.4	11.0	4500	341	157	13.4	115	0.460	0.0347	24.9
1979	273	0.020	13.6	11.1	12.0	11.5	4500	329	145	14.3	112	0.443	0.0321	26.3
1980	91	0.008	16.3	13.1	15.1	13.9	4500	313	141	14.6	110	0.449	0.0308	31.5
1981	121	0.011	17.1	13.7	15.7	14.6	4500	305	138	14.8	109	0.453	0.0303	33.0
1982	164	0.017	16.8	13.5	15.3	14.2	4500	307	145	14.3	112	0.474	0.0321	32.3
1983	215	0.021	17.3	13.7	16.1	14.7	4500	308	149	14.0	113	0.485	0.0330	33.3
1984	245	0.017	17.0	13.4	16.0	14.4	4500	309	152	13.8	114	0.492	0.0337	32.8
1985	258	0.018	16.1	12.8	14.9	13.7	4500	309	156	13.5	115	0.503	0.0345	30.9
1986	284	0.019	17.5	13.9	16.2	14.9	4500	304	148	14.1	112	0.485	0.0327	33.6
1987	252	0.017	17.3	13.7	16.3	14.8	4500	313	163	13.0	117	0.521	0.0362	33.3
1988	184	0.012	17.9	14.1	16.9	15.2	4500	320	169	12.6	119	0.528	0.0375	34.4
1989	223	0.015	17.5	13.7	16.8	14.9	4500	322	175	12.4	121	0.541	0.0388	33.7
1990	268	0.021	18.7	14.5	18.2	15.9	4500	305	174	12.4	121	0.569	0.0386	36.2
1991	211	0.017	19.1	14.7	18.8	16.3	4500	294	170	12.7	119	0.580	0.0376	37.0
1992	242	0.020	19.2	14.8	18.8	16.4	4500	288	179	12.2	122	0.626	0.0398	37.3
1993	251	0.019	19.8	15.2	19.5	16.9	4500	281	180	12.1	122	0.646	0.0400	38.2
1994	268	0.019	19.4	14.9	19.0	16.5	4500	285	187	11.7	124	0.661	0.0414	37.5
1995	291	0.019	19.1	14.8	18.8	16.3	4500	292	189	11.5	125	0.662	0.0421	37.0
1996	291	0.022	20.6	15.7	20.9	17.6	4500	248	177	12.2	121	0.715	0.0393	40.0
1997	275	0.019	20.7	15.7	20.9	17.7	4500	252	182	11.9	123	0.727	0.0405	40.1
1998	188	0.013	21.5	16.4	21.6	18.4	4500	242	186	11.6	124	0.770	0.0413	41.5
1999	428	0.028	22.1	16.7	22.4	18.8	4500	234	192	11.3	126	0.826	0.0428	42.5
2000	578	0.035	22.3	16.8	22.7	19.0	4500	232	192	11.4	126	0.832	0.0426	43.0
2001	626	0.040	23.4	17.7	23.9	20.0	4500	221	197	11.1	127	0.896	0.0438	45.2
2002	623	0.039	23.3	17.6	23.7	19.9	4500	220	206	10.8	130	0.941	0.0458	45.1
2003	582	0.037	23.5	17.7	24.0	20.1	4500	223	211	10.6	132	0.953	0.0469	45.4
2004	732	0.044	23.9	17.9	24.6	20.4	4500	220	218	10.3	134	1.003	0.0485	46.1

Percent of 4500. lb. Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	0.0	6.2	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	0.0	5.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	0.0	3.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	0.0	2.6	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	0.0	11.3	0.9	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	0.0	14.5	47.9	0.0	0.0	0.0	100.0	0.0 0.0
1981	0.2	0.0	13.3	48.8	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	0.0	6.8	46.6	0.0	0.0	0.0	100.0	0.0 0.0
1983	0.0	0.0	3.4	68.7	0.0	0.0	0.0	100.0	0.0 0.0
1984	0.0	0.0	2.9	76.7	0.0	0.0	0.0	100.0	0.0 0.0
1985	0.0	0.0	1.0	73.3	0.0	0.0	0.0	100.0	0.0 0.0
1986	0.0	0.0	0.6	78.0	21.6	21.6	0.0	78.4	0.0 0.0
1987	0.0	0.0	1.0	56.3	77.2	32.2	45.0	22.7	0.0 0.0
1988	0.0	0.0	0.9	60.4	99.3	16.5	82.8	0.7	0.0 0.0
1989	0.0	0.1	0.8	71.9	100.0	20.8	79.1	0.0	0.0 0.0
1990	0.0	4.2	0.0	89.1	100.0	9.2	90.8	0.0	0.0 0.0
1991	0.0	10.8	0.1	94.3	100.0	12.7	87.2	0.0	0.0 0.0
1992	0.0	13.6	0.0	97.4	100.0	31.2	68.8	0.0	0.0 0.0
1993	1.3	14.9	0.0	98.7	100.0	32.3	67.7	0.0	0.0 0.0
1994	0.0	15.4	0.0	96.4	100.0	47.9	52.1	0.0	0.0 0.3
1995	0.0	7.5	0.0	97.8	100.0	56.0	44.0	0.0	0.0 1.5
1996	52.1	6.1	0.0	97.8	100.0	100.0	0.0	0.0	0.0 0.4
1997	35.5	13.3	0.0	98.0	100.0	100.0	0.0	0.0	0.0 0.5
1998	40.3	14.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0 4.6
1999	76.1	4.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0 11.8
2000	78.4	3.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0 21.1
2001	91.5	1.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0 20.1
2002	90.9	2.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0 24.7
2003	88.8	5.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0 28.9
2004	93.0	3.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0 56.2



# Appendix H

Table H-20

Characteristics of 1975 to 2004 5000. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	12	0.001	12.0	9.7	10.7	10.2	5000	398	200	12.3	124	0.496	0.0395	25.5
1976	8	0.001	12.4	10.1	10.9	10.5	5000	369	169	13.9	115	0.454	0.0331	26.3
1977	18	0.001	12.4	10.0	11.2	10.5	5000	404	187	12.6	121	0.464	0.0373	26.3
1978	12	0.001	12.5	10.3	11.0	10.6	5000	389	183	12.9	119	0.469	0.0361	26.5
1979	96	0.007	11.8	9.6	10.6	10.0	5000	347	155	14.9	111	0.445	0.0307	25.4
1980	35	0.003	14.2	11.4	13.1	12.1	5000	334	148	15.3	109	0.441	0.0290	30.3
1981	26	0.002	14.8	11.9	13.6	12.6	5000	325	145	15.5	109	0.447	0.0283	31.8
1982	36	0.004	15.1	12.1	13.8	12.8	5000	320	144	15.6	108	0.450	0.0283	32.3
1983	49	0.005	17.1	13.5	16.0	14.5	5000	336	143	15.7	108	0.431	0.0282	38.0
1984	54	0.004	15.6	12.3	14.7	13.3	5000	329	155	14.9	111	0.471	0.0306	34.1
1985	52	0.004	15.4	12.2	14.4	13.1	5000	323	157	14.6	112	0.486	0.0311	33.3
1986	61	0.004	16.0	12.6	15.0	13.6	5000	326	162	14.4	113	0.495	0.0321	34.3
1987	64	0.004	15.9	12.4	15.1	13.5	5000	322	167	14.0	115	0.516	0.0332	34.0
1988	100	0.007	16.7	13.0	16.3	14.3	5000	312	156	14.7	112	0.500	0.0311	35.9
1989	99	0.007	16.5	12.8	16.0	14.0	5000	315	159	14.5	113	0.503	0.0316	35.3
1990	83	0.007	16.5	12.8	16.0	14.1	5000	317	165	14.1	114	0.519	0.0328	35.3
1991	55	0.004	16.6	12.9	16.2	14.2	5000	315	165	14.1	114	0.522	0.0326	35.5
1992	92	0.008	17.5	13.5	17.1	15.0	5000	305	169	13.8	115	0.557	0.0337	37.6
1993	101	0.008	17.7	13.6	17.4	15.1	5000	306	184	12.8	120	0.607	0.0367	38.0
1994	108	0.008	17.6	13.5	17.6	15.1	5000	308	190	12.5	121	0.623	0.0378	37.7
1995	106	0.007	17.8	13.7	17.5	15.2	5000	302	184	12.9	120	0.613	0.0366	38.0
1996	100	0.008	17.8	13.7	17.7	15.2	5000	317	203	12.0	125	0.644	0.0406	38.2
1997	135	0.009	19.0	14.5	18.9	16.2	5000	296	219	11.1	129	0.743	0.0437	40.7
1998	135	0.009	18.6	14.2	18.7	15.9	5000	295	217	11.2	129	0.738	0.0433	39.9
1999	176	0.012	18.2	13.9	18.2	15.6	5000	296	218	11.2	129	0.741	0.0437	39.0
2000	145	0.009	18.4	14.1	18.1	15.7	5000	292	219	11.2	129	0.751	0.0437	39.3
2001	116	0.007	18.6	14.3	18.4	15.9	5000	286	219	11.1	130	0.772	0.0438	39.9
2002	155	0.010	18.7	14.4	18.4	15.9	5000	262	210	11.5	127	0.813	0.0419	40.1
2003	69	0.004	19.3	14.8	19.2	16.5	5000	268	209	11.6	127	0.782	0.0417	41.5
2004	111	0.007	20.1	15.2	20.5	17.2	5000	245	205	11.7	126	0.846	0.0411	43.1

Percent of 5000. lb. Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	13.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	1.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	2.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	1.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	4.3	6.5	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	5.0	19.9	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	4.8	31.7	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	4.7	29.4	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	2.6	69.4	0.0	0.0	0.0	73.1	26.9	0.0
1984	0.0	0.0	3.5	51.9	0.0	0.0	0.0	91.6	8.4	0.0
1985	0.0	0.0	1.5	65.2	0.0	0.0	0.0	97.2	2.8	0.0
1986	0.0	0.0	0.7	58.7	23.5	23.5	0.0	75.1	1.4	0.0
1987	0.0	0.0	0.4	48.1	53.6	40.0	13.6	45.8	0.6	0.0
1988	0.0	0.0	0.0	74.2	98.3	84.0	14.3	1.0	0.7	0.0
1989	0.0	0.0	0.0	76.6	99.5	83.0	16.5	0.0	0.5	0.0
1990	0.0	0.3	0.0	86.9	99.3	81.8	17.5	0.0	0.7	0.0
1991	0.0	0.0	0.0	86.4	99.2	82.8	16.3	0.0	0.8	0.0
1992	0.0	15.4	0.0	81.4	99.5	90.0	9.5	0.0	0.5	0.0
1993	0.0	18.3	0.0	86.4	100.0	94.3	5.7	0.0	0.0	0.0
1994	0.0	18.3	0.0	88.0	100.0	98.0	2.0	0.0	0.0	0.0
1995	1.7	22.7	0.7	87.0	100.0	90.2	9.8	0.0	0.0	0.0
1996	0.0	15.2	0.0	93.1	100.0	100.0	0.0	0.0	0.0	0.0
1997	0.0	16.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	15.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.1	11.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.1
2000	0.0	16.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	19.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	32.1	13.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	32.1
2003	0.0	31.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	48.6	12.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	48.6

# Appendix H

Table H-21

Characteristics of 1975 to 2004 5500. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	16	0.001	11.4	9.5	9.9	9.7	5500	377	168	15.6	112	0.438	0.0302	26.9
1980	8	0.001	12.4	10.0	11.2	10.5	5500	356	154	16.0	108	0.430	0.0273	28.9
1981	0	0.000	12.3	9.9	11.2	10.5	5500	346	154	15.9	109	0.445	0.0240	29.0
1982	0	0.000	13.4	10.9	12.1	11.4	5500	337	143	16.8	106	0.422	0.0229	31.4
1983	5	0.000	18.2	14.2	17.5	15.5	5500	369	140	17.2	105	0.381	0.0245	46.3
1984	6	0.000	14.5	11.4	13.9	12.4	5500	362	158	15.8	109	0.436	0.0276	37.1
1985	5	0.000	12.9	10.3	12.0	11.0	5500	351	180	14.1	115	0.512	0.0321	30.4
1986	6	0.000	15.0	12.1	13.7	12.8	5500	286	158	15.9	110	0.593	0.0282	36.7
1987	4	0.000	14.6	11.4	13.9	12.4	5500	346	195	13.2	119	0.564	0.0351	34.8
1988	10	0.001	14.2	11.1	13.5	12.1	5500	346	195	13.2	119	0.561	0.0349	33.7
1989	5	0.000	14.4	11.4	13.6	12.3	5500	343	192	13.5	118	0.558	0.0346	34.4
1990	9	0.001	14.4	10.9	14.5	12.3	5500	347	199	13.0	120	0.573	0.0359	34.1
1991	10	0.001	15.2	11.6	15.2	13.0	5500	334	187	13.8	117	0.556	0.0334	35.9
1992	18	0.002	15.9	12.2	15.7	13.6	5500	323	178	14.4	115	0.547	0.0319	37.5
1993	31	0.002	16.1	12.5	15.6	13.7	5500	321	178	14.3	115	0.553	0.0321	38.0
1994	27	0.002	16.2	12.7	15.6	13.8	5500	316	174	14.6	114	0.549	0.0314	38.2
1995	27	0.002	16.2	12.6	15.7	13.8	5500	314	172	14.8	113	0.545	0.0308	38.2
1996	25	0.002	15.8	12.2	15.4	13.5	5500	314	169	15.0	112	0.535	0.0305	37.1
1997	27	0.002	17.3	13.2	17.4	14.8	5500	288	212	12.4	124	0.743	0.0382	40.9
1998	31	0.002	17.4	13.2	17.6	14.9	5500	296	217	12.1	125	0.738	0.0391	41.0
1999	37	0.002	17.5	13.2	17.8	14.9	5500	293	226	11.8	127	0.772	0.0408	41.1
2000	17	0.001	17.2	13.1	17.2	14.7	5500	296	221	12.1	126	0.751	0.0395	40.5
2001	13	0.001	17.6	13.4	17.7	15.0	5500	292	225	11.7	127	0.792	0.0404	41.6
2002	11	0.001	17.5	13.4	17.4	14.9	5500	298	228	11.6	128	0.780	0.0406	41.3
2003	36	0.002	17.4	12.9	18.4	14.9	5500	308	236	11.5	130	0.780	0.0427	41.2
2004	22	0.001	18.8	14.6	18.2	16.1	5500	313	271	10.2	139	0.862	0.0491	44.2

Percent of 5500. lb. Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1979	0.0	0.0	3.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	0.8	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	4.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	2.3	2.5	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	0.6	83.2	0.0	0.0	0.0	38.8	61.2	0.0
1984	0.0	0.0	1.0	59.3	0.0	0.0	0.0	67.2	32.8	0.0
1985	0.0	0.0	0.0	44.9	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	0.0	32.4	35.0	0.0	0.0	0.0	67.6	32.4	0.0
1987	0.0	0.0	0.0	50.7	50.7	11.6	39.1	49.3	0.0	0.0
1988	0.0	0.0	0.0	29.0	95.7	71.4	24.3	3.2	1.1	0.0
1989	0.0	0.0	0.0	45.0	99.7	66.2	33.5	0.0	0.3	0.0
1990	0.0	0.0	0.0	95.1	100.0	82.5	17.5	0.0	0.0	0.0
1991	0.0	0.0	0.0	100.0	100.0	89.0	10.9	0.0	0.0	0.0
1992	0.0	0.0	0.0	93.7	100.0	92.9	7.1	0.0	0.0	0.0
1993	0.0	0.6	0.0	78.0	100.0	89.5	10.5	0.0	0.0	0.0
1994	0.0	0.0	0.0	74.1	100.0	90.9	9.1	0.0	0.0	0.0
1995	0.0	0.0	0.0	70.8	100.0	94.9	5.1	0.0	0.0	0.0
1996	0.0	0.0	0.0	61.5	100.0	100.0	0.0	0.0	0.0	0.0
1997	5.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	2.8	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	9.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	9.8	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	9.8
2002	7.1	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	7.1
2003	7.8	1.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	7.8
2004	0.0	8.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix H

Table H-22

Characteristics of 1975 to 2004 6000. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	0	0.000	11.1	9.1	9.7	9.4	6000	317	148	17.1	105	0.456	0.0150	28.5
1976	0	0.000	11.9	9.7	10.6	10.1	6000	325	144	17.5	103	0.425	0.0168	30.5
1977	1	0.000	13.0	10.9	11.2	11.0	6000	318	148	17.3	105	0.453	0.0176	33.2
1978	1	0.000	12.5	10.4	10.9	10.6	6000	324	154	16.8	106	0.467	0.0213	31.9
1979	3	0.000	10.6	8.4	10.1	9.1	6000	460	270	10.8	135	0.587	0.0447	27.2
1980	1	0.000	10.9	9.1	9.4	9.2	6000	400	187	14.6	114	0.467	0.0303	27.7
1982	0	0.000	11.9	9.5	10.8	10.1	6000	350	165	16.1	109	0.429	0.0000	30.3
1983	0	0.000	12.6	10.1	11.6	10.7	6000	366	150	17.4	105	0.405	0.0250	32.2
1984	0	0.000	12.9	10.3	11.8	10.9	6000	366	150	17.4	105	0.405	0.0250	32.8
1985	1	0.000	21.3	16.2	21.5	18.2	6000	376	133	19.2	101	0.351	0.0195	55.7
1986	1	0.000	23.1	17.6	22.9	19.7	6000	379	130	19.5	100	0.341	0.0204	59.1
1987	0	0.000	22.9	17.6	22.6	19.5	6000	379	130	19.5	100	0.341	0.0192	58.5
1988	0	0.000	21.7	16.4	22.2	18.5	6000	379	126	20.0	99	0.330	0.0197	55.6
1989	0	0.000	21.3	16.3	21.2	18.2	6000	379	130	19.5	100	0.336	0.0203	54.6
1990	0	0.000	21.5	16.2	22.1	18.4	6000	379	135	18.9	101	0.350	0.0182	55.2
1991	0	0.000	20.4	15.7	20.2	17.4	6000	379	140	18.4	103	0.365	0.0205	52.3
1992	4	0.000	15.0	11.2	15.5	12.8	6000	352	202	13.7	118	0.574	0.0335	38.6
1993	0	0.000	21.3	16.4	20.8	18.1	6000	379	145	17.9	104	0.369	0.0119	54.4
1994	6	0.000	15.5	11.7	15.9	13.3	6000	351	204	13.6	119	0.581	0.0338	39.8
1995	6	0.000	16.1	12.1	16.5	13.7	6000	344	197	14.1	117	0.570	0.0325	41.3
1996	5	0.000	16.1	12.1	16.6	13.8	6000	350	205	13.5	119	0.587	0.0339	41.3
1997	3	0.000	16.3	12.3	16.8	14.0	6000	331	226	12.5	124	0.683	0.0374	42.0
1998	2	0.000	16.4	12.3	16.9	14.0	6000	330	226	12.5	124	0.684	0.0371	42.2
1999	3	0.000	16.0	12.0	16.5	13.7	6000	329	234	12.2	126	0.709	0.0384	41.2
2000	3	0.000	16.2	12.4	16.0	13.8	6000	330	250	11.5	130	0.759	0.0415	41.5
2001	3	0.000	16.1	12.4	15.9	13.8	6000	329	253	11.4	131	0.766	0.0417	41.3
2002	4	0.000	17.1	13.0	17.0	14.6	6000	330	254	11.4	131	0.770	0.0419	43.7
2003	132	0.008	17.5	13.4	17.3	14.9	6000	337	287	10.3	139	0.852	0.0478	44.8
2004	33	0.002	18.8	14.4	18.6	16.0	6000	323	278	10.6	137	0.860	0.0461	48.2

Percent of 6000. lb. Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	85.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	85.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	65.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	64.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	0.0	2.1	97.9	0.0	0.0	0.0	8.8	91.2	0.0
1986	0.0	0.0	2.2	97.8	0.0	0.0	0.0	0.0	100.0	0.0
1987	0.0	0.0	0.6	99.4	0.0	0.0	0.0	0.0	100.0	0.0
1988	0.0	0.0	0.9	99.1	0.0	0.0	0.0	0.0	100.0	0.0
1989	0.0	0.0	1.4	98.6	0.0	0.0	0.0	0.0	100.0	0.0
1990	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
1991	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
1992	0.0	0.0	0.0	100.0	95.4	95.4	0.0	0.0	4.6	0.0
1993	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1994	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1997	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2003	0.0	85.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	0.0	41.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix H

Table H-23

Characteristics of 1975 to 2004 6500. lb. Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	1	0.000	10.6	8.9	9.0	9.0	6500	321	150	18.6	103	0.464	0.0199	29.2
1976	1	0.000	11.5	9.4	10.4	9.8	6500	324	144	19.2	102	0.442	0.0197	31.9
1977	1	0.000	12.3	10.3	10.6	10.4	6500	316	142	19.3	101	0.449	0.0202	34.0
1978	1	0.000	11.7	9.7	10.3	9.9	6500	328	155	18.1	104	0.474	0.0229	32.3
2000	0	0.000	14.2	10.8	14.2	12.1	6500	330	193	15.1	113	0.500	0.0000	39.3

Percent of 6500. lb. Vans:

MODEL YEAR	DRIVE FRONT	TRAIN 4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	0.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix H

Table H-24 Characteristics of 1975 to 2004 2000. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	1	0.000	25.7	20.9	23.0	21.8	2000	49	41	19.7	89	0.836	0.0201	21.8
1980	3	0.000	25.2	20.3	22.9	21.4	2000	49	41	19.7	89	0.836	0.0202	21.4
1981	1	0.000	25.2	20.3	22.9	21.4	2000	49	41	19.7	89	0.836	0.0202	21.4
1982	1	0.000	25.2	21.3	21.3	21.3	2000	59	45	18.3	92	0.762	0.0218	21.3
1983	1	0.000	25.2	21.3	21.3	21.3	2000	59	45	18.3	92	0.762	0.0221	21.3

Percent of 2000. lb. SUVs:

MODEL YEAR	DRIVE FRONT	TRAIN 4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1979	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix H

Table H-25 Characteristics of 1975 to 2004 2250. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1982	2	0.000	24.8	20.9	21.1	21.0	2250	59	45	20.1	90	0.762	0.0196	23.6
1983	3	0.000	24.8	20.9	21.1	21.0	2250	59	45	20.0	90	0.763	0.0200	23.6
1984	5	0.000	28.8	25.3	23.1	24.2	2250	59	45	20.0	90	0.762	0.0196	27.3
1985	6	0.000	28.8	25.3	23.1	24.2	2250	61	45	20.0	90	0.737	0.0198	27.3
1986	37	0.002	33.1	27.2	29.2	28.1	2250	81	64	15.3	99	0.790	0.0284	31.6
1987	63	0.004	33.1	27.2	29.2	28.1	2250	81	64	15.3	99	0.790	0.0284	31.6
1988	83	0.005	33.3	27.5	29.1	28.2	2250	81	64	15.3	99	0.790	0.0284	31.7
1989	5	0.000	33.4	27.8	28.9	28.3	2250	80	64	15.3	99	0.797	0.0282	31.8

Percent of 2250. lb. SUVs:

MODEL YEAR	DRIVE FRONT	TRAIN 4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1982	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1988	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1989	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix H

Table H-26

Characteristics of 1975 to 2004 2500. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1982	11	0.001	23.6	20.7	19.1	19.9	2500	151	84	13.7	106	0.556	0.0336	24.9
1983	13	0.001	23.2	20.4	18.7	19.6	2500	151	87	13.3	107	0.580	0.0349	24.5
1984	3	0.000	22.6	19.7	18.3	19.1	2500	150	93	12.6	110	0.620	0.0371	23.8
1989	39	0.003	31.3	25.9	27.3	26.5	2500	97	80	14.1	104	0.825	0.0319	33.2
1990	34	0.003	31.9	26.3	28.0	27.0	2500	94	78	14.3	103	0.826	0.0309	33.8
1991	15	0.001	31.2	25.8	27.3	26.5	2500	91	75	14.7	102	0.828	0.0298	33.2
1992	19	0.002	30.0	24.8	26.3	25.4	2500	94	77	14.4	103	0.827	0.0309	31.9
1993	19	0.001	29.4	24.3	25.8	24.9	2500	96	79	14.2	104	0.825	0.0315	31.2
1994	27	0.002	29.3	24.2	25.7	24.8	2500	96	79	14.2	104	0.829	0.0316	31.1
1995	20	0.001	29.7	24.3	26.5	25.2	2500	97	81	13.9	105	0.840	0.0324	31.5
1996	3	0.000	29.3	23.9	26.2	24.9	2500	97	95	12.3	111	0.979	0.0374	31.2
1997	4	0.000	28.4	23.3	25.1	24.1	2500	97	95	12.4	111	0.979	0.0375	30.2
1998	6	0.000	28.5	23.4	25.1	24.1	2500	97	95	12.3	111	0.979	0.0376	30.2

Percent of 2500. lb. SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1989	0.0	100.0	56.2	43.8	100.0	0.0	100.0	0.0	0.0	0.0
1990	0.0	95.5	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1991	0.0	20.6	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1992	0.0	11.5	75.8	24.2	100.0	0.0	100.0	0.0	0.0	0.0
1993	0.0	2.4	67.2	32.8	100.0	6.5	93.5	0.0	0.0	0.0
1994	0.0	7.0	59.5	40.5	100.0	7.8	92.2	0.0	0.0	2.3
1995	0.0	5.9	60.8	39.2	100.0	10.0	90.0	0.0	0.0	0.0
1996	0.0	0.0	66.6	33.4	100.0	100.0	0.0	0.0	0.0	100.0
1997	0.0	0.0	27.2	72.8	100.0	100.0	0.0	0.0	0.0	100.0
1998	0.0	0.0	52.5	47.5	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-27

Characteristics of 1975 to 2004 2750. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	47	0.005	16.8	13.5	15.5	14.3	2750	275	120	11.4	119	0.429	0.0434	19.8
1976	41	0.003	17.8	14.7	15.5	15.1	2750	268	102	12.6	111	0.379	0.0369	20.8
1977	44	0.003	18.6	15.2	16.6	15.8	2750	271	103	12.4	112	0.381	0.0375	21.8
1978	58	0.004	18.1	14.8	16.2	15.4	2750	270	102	12.5	111	0.379	0.0371	21.2
1979	9	0.001	20.8	17.5	17.7	17.6	2750	121	80	15.4	102	0.661	0.0291	24.2
1986	0	0.000	25.6	20.1	24.3	21.8	2750	96	86	14.2	104	0.880	0.0200	29.9
1989	0	0.000	29.3	24.5	25.3	24.8	2750	97	80	15.4	102	0.783	0.0000	34.1
1990	14	0.001	28.7	23.9	24.9	24.3	2750	97	80	15.4	102	0.825	0.0290	33.5
1991	28	0.002	28.9	23.9	25.4	24.5	2750	97	80	15.2	102	0.825	0.0289	33.8
1992	27	0.002	29.0	23.9	25.5	24.6	2750	97	82	14.8	103	0.849	0.0298	33.9
1993	24	0.002	29.0	23.9	25.5	24.6	2750	97	81	15.0	102	0.835	0.0292	33.8
1994	30	0.002	28.7	23.6	25.2	24.3	2750	97	83	14.7	103	0.860	0.0301	33.5
1995	39	0.003	28.4	23.2	25.2	24.1	2750	97	95	13.3	108	0.979	0.0344	33.1
1996	44	0.003	28.5	23.2	25.6	24.2	2750	99	97	13.1	109	0.980	0.0352	33.4
1997	12	0.001	28.6	23.3	25.6	24.3	2750	100	98	13.0	110	0.980	0.0354	33.4
1998	9	0.001	28.5	23.3	25.2	24.1	2750	97	95	13.3	108	0.979	0.0342	33.2
1999	2	0.000	31.0	25.1	27.9	26.3	2750	97	97	12.9	109	1.000	0.0345	36.1
2000	1	0.000	31.1	25.2	28.0	26.4	2750	97	97	12.9	109	1.000	0.0339	36.3
2001	0	0.000	31.0	25.2	27.8	26.4	2750	122	97	12.9	109	0.792	0.0292	36.2

Percent of 2750. lb. SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	100.0	89.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	100.0	92.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	100.0	89.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1989	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1990	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1991	0.0	100.0	56.7	43.3	100.0	0.0	100.0	0.0	0.0	0.0
1992	0.0	84.1	63.7	36.3	100.0	15.9	84.1	0.0	0.0	0.0
1993	0.0	92.9	60.6	39.4	100.0	21.8	78.2	0.0	0.0	0.0
1994	0.0	89.8	51.4	48.6	100.0	22.8	77.2	0.0	0.0	22.8
1995	0.0	97.2	46.1	53.9	100.0	100.0	0.0	0.0	0.0	0.0
1996	8.5	59.5	51.5	48.5	100.0	100.0	0.0	0.0	0.0	100.0
1997	13.6	81.0	48.4	51.6	100.0	100.0	0.0	0.0	0.0	100.0
1998	0.0	99.4	45.8	54.2	100.0	100.0	0.0	0.0	0.0	100.0
1999	1.4	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	4.1
2000	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0



# Appendix H

Table H-28

Characteristics of 1975 to 2004 3000. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1976	10	0.001	15.4	12.3	14.2	13.1	3000	304	120	11.8	116	0.395	0.0398	19.7
1977	13	0.001	16.8	13.7	15.1	14.3	3000	304	120	11.8	116	0.395	0.0399	21.5
1978	20	0.001	16.8	13.5	15.3	14.2	3000	304	120	11.8	116	0.395	0.0399	21.4
1979	52	0.004	17.2	14.3	14.9	14.6	3000	258	120	11.7	116	0.465	0.0399	21.9
1980	43	0.004	19.7	16.0	17.6	16.7	3000	222	92	14.4	105	0.440	0.0306	25.3
1981	38	0.004	20.9	16.8	19.0	17.7	3000	223	101	13.5	108	0.469	0.0337	26.9
1982	26	0.003	20.3	16.0	19.2	17.3	3000	239	104	13.2	110	0.447	0.0345	26.2
1983	37	0.004	20.5	16.3	19.0	17.4	3000	250	110	12.6	112	0.444	0.0365	26.2
1984	70	0.005	22.7	18.3	20.6	19.3	3000	202	102	13.5	108	0.528	0.0337	29.1
1985	20	0.001	24.2	19.1	22.8	20.6	3000	152	97	14.0	107	0.638	0.0321	31.0
1986	5	0.000	24.0	19.4	21.8	20.4	3000	150	111	12.5	112	0.734	0.0361	30.8
1987	12	0.001	22.8	18.4	20.7	19.4	3000	150	117	12.0	115	0.780	0.0387	29.2
1988	8	0.001	22.8	18.4	20.7	19.4	3000	150	117	12.0	115	0.780	0.0387	29.2
1989	20	0.001	22.2	17.8	20.2	18.8	3000	150	117	12.0	115	0.780	0.0388	28.3
1990	29	0.002	23.4	19.0	21.0	19.8	3000	136	111	12.5	112	0.829	0.0369	30.0
1991	11	0.001	27.0	22.4	23.4	22.8	3000	99	87	15.3	102	0.876	0.0287	34.3
1992	29	0.002	23.7	19.2	21.3	20.1	3000	139	123	11.7	117	0.890	0.0407	30.5
1993	42	0.003	24.1	19.7	21.6	20.5	3000	135	120	11.9	116	0.899	0.0399	31.1
1994	58	0.004	23.8	19.4	21.2	20.2	3000	135	116	12.3	114	0.865	0.0386	30.6
1995	110	0.007	23.5	19.2	20.9	19.9	3000	138	116	12.4	114	0.847	0.0388	30.2
1996	78	0.006	28.2	22.4	26.4	24.0	3000	114	113	12.6	113	0.986	0.0374	36.1
1997	153	0.011	27.9	22.1	26.2	23.8	3000	127	124	11.7	117	0.980	0.0413	35.7
1998	53	0.004	28.9	22.9	26.9	24.5	3000	114	116	12.2	114	1.024	0.0387	36.9
1999	55	0.004	29.4	23.5	27.0	25.0	3000	122	125	11.5	118	1.024	0.0414	37.6
2000	46	0.003	29.3	23.4	27.0	24.9	3000	121	126	11.4	118	1.044	0.0419	37.4
2001	74	0.005	29.5	23.5	27.2	25.1	3000	122	138	10.6	123	1.135	0.0460	37.6
2002	69	0.004	30.3	23.8	28.6	25.8	3000	121	144	10.3	125	1.191	0.0479	38.7
2003	60	0.004	29.6	23.4	27.8	25.2	3000	122	141	10.5	124	1.157	0.0469	37.9
2004	42	0.003	30.7	24.3	29.0	26.2	3000	144	161	9.4	132	1.118	0.0537	39.3

Percent of 3000. lb. SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1976	0.0	100.0	54.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	100.0	70.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	100.0	70.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	100.0	88.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	100.0	90.6	8.7	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	96.6	87.8	12.2	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	100.0	90.1	9.9	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	98.6	76.6	23.4	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	73.2	62.9	37.1	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	54.7	83.3	16.7	44.8	0.0	44.8	55.2	0.0	0.0
1987	0.0	87.3	98.4	1.6	100.0	0.0	100.0	0.0	0.0	0.0
1988	0.0	85.5	98.3	1.7	100.0	0.0	100.0	0.0	0.0	0.0
1989	0.0	97.0	99.6	0.4	100.0	0.0	100.0	0.0	0.0	0.0
1990	0.0	97.5	99.7	0.3	100.0	26.2	73.8	0.0	0.0	0.0
1991	0.0	96.5	71.5	28.5	100.0	38.3	61.7	0.0	0.0	0.0
1992	0.0	98.3	97.8	2.2	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	92.3	86.7	13.3	100.0	100.0	0.0	0.0	0.0	0.0
1994	0.0	88.3	79.8	20.2	100.0	86.1	13.9	0.0	0.0	14.7
1995	0.0	95.1	80.7	19.3	100.0	80.1	19.9	0.0	0.0	0.0
1996	18.2	67.7	35.5	64.5	100.0	100.0	0.0	0.0	0.0	94.2
1997	18.7	36.7	39.9	45.8	100.0	100.0	0.0	0.0	0.0	100.0
1998	52.0	35.3	26.8	73.2	100.0	100.0	0.0	0.0	0.0	100.0
1999	50.1	31.2	32.5	67.5	100.0	100.0	0.0	0.0	0.0	60.2
2000	46.1	24.1	24.5	75.5	100.0	100.0	0.0	0.0	0.0	46.1
2001	54.6	10.5	21.4	78.6	100.0	100.0	0.0	0.0	0.0	54.6
2002	90.1	9.9	14.7	85.3	100.0	100.0	0.0	0.0	0.0	74.7
2003	89.4	10.6	12.6	87.4	100.0	100.0	0.0	0.0	0.0	67.7
2004	98.7	0.0	8.9	91.1	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-29

Characteristics of 1975 to 2004 3500. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1976	0	0.000	14.3	11.4	13.3	12.2	3500	350	161	10.6	126	0.459	0.0446	21.3
1979	38	0.003	15.6	13.0	13.4	13.2	3500	304	122	13.1	112	0.402	0.0348	23.2
1980	12	0.001	16.3	13.1	14.8	13.8	3500	285	115	14.1	109	0.400	0.0326	24.3
1981	2	0.000	17.2	13.3	16.8	14.7	3500	304	130	12.5	115	0.427	0.0365	25.7
1982	0	0.000	16.6	14.6	13.4	14.0	3500	173	110	14.5	107	0.632	0.0294	24.5
1983	34	0.003	24.4	18.6	24.4	20.8	3500	169	108	14.5	107	0.643	0.0304	36.6
1984	218	0.016	21.7	17.1	20.6	18.5	3500	168	104	15.1	105	0.619	0.0296	32.5
1985	319	0.022	22.2	17.2	21.6	18.9	3500	167	104	15.0	105	0.630	0.0298	33.3
1986	373	0.024	21.9	17.2	20.7	18.6	3500	171	119	13.5	111	0.706	0.0341	32.7
1987	429	0.029	22.3	17.3	21.7	19.1	3500	191	134	12.5	116	0.710	0.0382	33.5
1988	413	0.027	21.4	16.5	21.0	18.2	3500	210	147	11.6	121	0.712	0.0421	32.1
1989	296	0.021	21.1	16.3	20.5	18.0	3500	236	157	11.0	124	0.673	0.0448	31.6
1990	216	0.017	21.0	16.1	20.7	17.9	3500	235	160	10.9	125	0.687	0.0456	31.4
1991	221	0.018	20.5	16.1	19.6	17.5	3500	219	156	11.3	124	0.714	0.0445	30.7
1992	195	0.016	20.0	15.5	19.3	17.0	3500	227	174	10.3	131	0.764	0.0498	30.0
1993	186	0.014	19.9	15.5	19.2	17.0	3500	228	177	10.2	131	0.772	0.0504	29.8
1994	180	0.013	20.2	15.7	19.6	17.2	3500	224	177	10.0	132	0.797	0.0507	30.3
1995	153	0.010	19.8	15.2	19.6	16.9	3500	233	184	9.7	134	0.793	0.0525	29.8
1996	210	0.016	20.4	15.6	20.2	17.4	3500	232	185	9.5	134	0.807	0.0529	30.6
1997	330	0.023	22.6	17.9	21.2	19.2	3500	176	150	11.5	122	0.881	0.0428	34.1
1998	364	0.025	24.0	18.9	22.5	20.4	3500	161	148	11.6	121	0.951	0.0422	36.3
1999	342	0.022	25.3	20.1	23.6	21.5	3500	142	147	11.5	121	1.058	0.0420	38.0
2000	421	0.025	24.0	19.0	22.5	20.4	3500	157	152	11.3	123	1.019	0.0436	36.3
2001	650	0.042	24.7	19.4	23.6	21.1	3500	155	164	10.6	127	1.080	0.0470	37.2
2002	564	0.035	25.9	20.2	24.9	22.1	3500	154	169	10.4	129	1.096	0.0482	39.0
2003	649	0.042	25.9	20.3	24.9	22.1	3500	155	168	10.4	128	1.081	0.0479	39.0
2004	497	0.030	26.4	20.5	25.6	22.5	3500	153	169	10.3	129	1.104	0.0484	39.6

Percent of 3500. lb. SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1976	0.0	0.0	15.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	100.0	78.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	100.0	44.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	100.0	76.8	23.2	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	38.3	57.3	42.7	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	79.1	33.2	31.9	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	74.2	42.4	57.2	9.6	0.0	0.0	90.0	0.4	0.0
1986	0.0	84.8	49.6	49.3	51.8	29.5	22.3	48.1	0.1	0.0
1987	0.0	78.3	46.0	48.4	76.7	57.0	19.7	23.3	0.0	0.0
1988	0.0	73.8	33.9	62.3	88.0	74.2	13.9	12.0	0.0	0.0
1989	0.0	63.8	26.9	69.6	86.4	66.6	19.8	13.6	0.0	0.0
1990	0.0	73.6	27.6	69.1	86.1	77.2	9.0	13.9	0.0	0.0
1991	0.0	62.7	28.9	68.0	99.2	71.7	27.5	0.8	0.0	0.0
1992	0.0	61.0	24.4	72.4	98.5	84.4	14.1	1.5	0.0	0.0
1993	0.0	58.3	25.4	70.4	98.2	85.9	12.4	1.8	0.0	0.0
1994	0.0	58.5	26.9	59.1	100.0	99.3	0.7	0.0	0.0	0.0
1995	0.2	77.8	25.8	74.2	100.0	100.0	0.0	0.0	0.0	3.4
1996	0.0	70.1	12.7	87.3	100.0	100.0	0.0	0.0	0.0	12.7
1997	0.0	87.0	43.9	56.1	100.0	100.0	0.0	0.0	0.0	45.9
1998	5.3	76.0	37.5	62.5	100.0	100.0	0.0	0.0	0.0	64.3
1999	7.4	75.3	24.9	75.1	100.0	100.0	0.0	0.0	0.0	79.5
2000	6.2	79.2	14.5	85.5	100.0	100.0	0.0	0.0	0.0	64.0
2001	18.5	66.2	10.5	89.5	100.0	100.0	0.0	0.0	0.0	79.2
2002	25.7	69.5	11.0	88.5	100.0	100.0	0.0	0.0	0.0	91.8
2003	35.1	64.1	8.2	85.6	100.0	100.0	0.0	0.0	0.0	95.6
2004	29.3	68.6	11.1	82.2	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-30

Characteristics of 1975 to 2004 4000. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	26	0.003	13.2	10.4	12.4	11.2	4000	315	132	14.1	111	0.418	0.0320	22.6
1976	35	0.003	13.3	10.4	12.6	11.3	4000	324	137	13.6	113	0.425	0.0334	23.1
1977	48	0.003	14.5	11.5	13.6	12.4	4000	321	139	13.5	113	0.434	0.0341	25.1
1978	56	0.004	14.2	11.2	13.4	12.1	4000	332	139	13.3	113	0.423	0.0345	24.5
1979	13	0.001	14.4	11.6	13.0	12.2	4000	248	110	16.2	104	0.439	0.0266	24.8
1980	7	0.001	16.0	13.0	14.4	13.6	4000	250	100	17.3	101	0.401	0.0241	27.4
1981	7	0.001	16.9	13.4	15.7	14.4	4000	260	113	15.7	105	0.434	0.0277	28.8
1982	8	0.001	19.4	15.3	18.2	16.5	4000	257	111	15.9	104	0.430	0.0273	33.4
1983	67	0.007	21.9	16.7	21.8	18.7	4000	175	110	16.0	104	0.631	0.0274	37.4
1984	122	0.009	21.8	16.6	22.0	18.6	4000	177	110	16.0	104	0.626	0.0275	37.4
1985	173	0.012	22.0	16.6	22.6	18.8	4000	173	110	16.0	104	0.636	0.0275	37.7
1986	154	0.010	21.1	16.3	20.7	18.0	4000	165	121	14.8	108	0.738	0.0303	36.5
1987	184	0.012	20.4	15.7	20.1	17.4	4000	172	127	14.3	109	0.737	0.0316	34.9
1988	259	0.017	20.8	16.2	20.0	17.7	4000	190	135	13.7	112	0.723	0.0337	35.6
1989	348	0.024	21.2	16.6	20.2	18.0	4000	213	146	12.8	116	0.703	0.0366	36.2
1990	202	0.016	20.5	16.1	19.6	17.5	4000	196	141	13.1	114	0.738	0.0353	35.1
1991	463	0.037	20.9	16.2	20.5	17.9	4000	231	155	12.3	119	0.681	0.0388	35.8
1992	371	0.030	20.4	15.7	20.2	17.5	4000	232	165	11.8	122	0.713	0.0411	35.0
1993	576	0.044	20.5	15.6	20.5	17.5	4000	250	189	10.5	130	0.761	0.0472	35.2
1994	540	0.039	19.7	15.1	19.4	16.8	4000	243	184	10.7	128	0.768	0.0461	33.8
1995	575	0.038	19.5	15.0	19.2	16.6	4000	237	183	10.8	128	0.784	0.0457	33.4
1996	537	0.041	19.9	15.3	19.6	17.0	4000	249	187	10.5	129	0.765	0.0469	34.2
1997	617	0.043	20.2	15.6	19.7	17.2	4000	239	188	10.5	129	0.799	0.0469	34.7
1998	841	0.058	20.7	15.9	20.4	17.6	4000	238	185	10.7	129	0.790	0.0462	35.4
1999	969	0.064	21.2	16.4	20.7	18.1	4000	226	188	10.5	129	0.849	0.0469	36.3
2000	944	0.057	21.1	16.4	20.5	18.0	4000	226	186	10.6	129	0.841	0.0465	36.1
2001	918	0.059	21.6	16.7	21.2	18.4	4000	216	194	10.3	132	0.918	0.0485	37.2
2002	887	0.055	21.9	17.0	21.4	18.7	4000	204	193	10.3	131	0.965	0.0483	37.8
2003	883	0.057	23.0	17.7	22.7	19.6	4000	207	200	10.1	133	0.986	0.0500	39.5
2004	983	0.059	23.1	17.7	23.0	19.8	4000	209	204	9.9	135	0.990	0.0511	39.8

Percent of 4000. lb. SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	60.2	43.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	68.4	41.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	61.1	48.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	71.0	45.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	50.4	94.0	4.7	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	94.9	66.3	4.4	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	97.1	32.7	67.3	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	90.9	30.7	69.3	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	100.0	28.9	71.1	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	95.4	21.9	73.5	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	100.0	17.9	82.1	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	100.0	31.9	68.1	96.8	23.4	73.4	0.0	3.2	0.0
1987	0.0	100.0	19.9	80.1	100.0	5.4	94.6	0.0	0.0	0.0
1988	0.0	100.0	32.8	67.2	100.0	33.2	66.8	0.0	0.0	0.0
1989	0.0	99.0	30.4	66.9	100.0	43.8	56.2	0.0	0.0	0.0
1990	0.0	95.8	41.0	58.5	100.0	65.6	34.4	0.0	0.0	0.0
1991	0.0	71.0	20.9	79.0	100.0	42.5	57.5	0.0	0.0	0.0
1992	0.0	58.4	20.3	79.7	100.0	64.7	35.3	0.0	0.0	0.0
1993	0.0	33.8	10.4	89.6	100.0	99.2	0.8	0.0	0.0	0.0
1994	0.0	60.7	13.7	86.3	100.0	99.5	0.5	0.0	0.0	13.4
1995	0.0	66.7	14.1	85.9	100.0	100.0	0.0	0.0	0.0	22.8
1996	0.0	64.0	6.9	93.1	100.0	100.0	0.0	0.0	0.0	14.0
1997	0.0	61.0	8.5	91.5	100.0	100.0	0.0	0.0	0.0	30.4
1998	0.0	52.9	4.8	95.2	100.0	100.0	0.0	0.0	0.0	25.1
1999	2.3	53.1	7.0	93.0	100.0	100.0	0.0	0.0	0.0	32.8
2000	3.3	39.5	7.5	92.5	100.0	100.0	0.0	0.0	0.0	30.5
2001	14.4	40.0	5.1	94.9	100.0	100.0	0.0	0.0	0.0	39.9
2002	21.2	39.5	6.6	93.4	100.0	100.0	0.0	0.0	0.0	58.1
2003	20.6	52.3	2.4	91.4	100.0	100.0	0.0	0.0	0.0	55.6
2004	31.1	46.7	6.6	88.3	100.0	100.0	0.0	0.0	0.0	55.0

# Appendix H

Table H-31

Characteristics of 1975 to 2004 4500. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	41	0.004	13.5	10.7	12.6	11.5	4500	351	157	13.4	115	0.445	0.0341	26.0
1976	47	0.004	13.9	11.0	13.0	11.8	4500	349	150	14.0	113	0.429	0.0326	26.8
1977	101	0.007	15.4	12.3	14.2	13.1	4500	345	150	13.8	113	0.435	0.0331	29.6
1978	119	0.008	14.7	11.7	13.6	12.5	4500	343	157	13.3	115	0.459	0.0346	28.2
1979	56	0.004	12.9	10.4	11.7	10.9	4500	334	140	14.6	110	0.420	0.0308	24.8
1980	50	0.004	14.5	11.7	13.1	12.3	4500	313	138	14.8	110	0.445	0.0303	28.4
1981	42	0.004	15.8	12.5	14.7	13.4	4500	317	137	14.8	109	0.434	0.0301	30.5
1982	50	0.005	15.7	12.4	14.6	13.3	4500	316	139	14.6	110	0.443	0.0307	30.3
1983	55	0.005	15.7	12.5	14.6	13.3	4500	317	135	14.9	109	0.430	0.0299	30.4
1984	61	0.004	14.8	11.8	13.7	12.6	4500	320	134	15.0	108	0.420	0.0297	28.7
1985	60	0.004	15.0	12.0	13.9	12.8	4500	321	145	14.1	112	0.456	0.0322	29.2
1986	46	0.003	15.6	12.4	14.6	13.3	4500	325	142	14.4	111	0.438	0.0314	30.4
1987	32	0.002	14.6	11.5	13.8	12.5	4500	325	144	14.2	111	0.450	0.0318	28.3
1988	34	0.002	15.0	12.0	13.9	12.8	4500	311	147	14.0	112	0.494	0.0327	29.1
1989	31	0.002	14.9	11.8	13.9	12.7	4500	311	151	13.8	113	0.505	0.0334	28.7
1990	58	0.005	17.5	13.7	16.8	14.9	4500	221	153	13.6	114	0.740	0.0341	34.1
1991	262	0.021	19.8	15.2	19.5	16.9	4500	227	167	12.6	118	0.742	0.0371	38.1
1992	260	0.021	19.4	15.1	18.9	16.6	4500	220	167	12.6	118	0.764	0.0372	37.4
1993	298	0.023	19.7	15.2	19.1	16.8	4500	217	167	12.6	118	0.778	0.0372	37.9
1994	546	0.039	19.9	15.4	19.6	17.0	4500	229	177	12.1	121	0.776	0.0393	38.5
1995	645	0.043	19.9	15.3	19.6	17.0	4500	233	174	12.3	120	0.754	0.0386	38.5
1996	736	0.056	20.2	15.4	20.3	17.3	4500	251	176	12.2	121	0.708	0.0391	39.0
1997	832	0.058	19.8	15.2	19.6	16.9	4500	252	181	11.9	123	0.724	0.0402	38.2
1998	719	0.050	20.1	15.4	20.0	17.2	4500	251	184	11.8	124	0.745	0.0410	38.8
1999	747	0.049	19.7	15.1	19.3	16.8	4500	259	199	11.1	128	0.777	0.0442	37.9
2000	904	0.055	19.9	15.2	19.7	17.0	4500	254	196	11.2	127	0.783	0.0437	38.3
2001	732	0.047	19.9	15.3	19.5	17.0	4500	237	208	10.7	131	0.895	0.0462	38.3
2002	1525	0.095	19.9	15.3	19.8	17.0	4500	243	225	10.1	136	0.931	0.0501	38.4
2003	900	0.058	20.9	16.0	20.7	17.8	4500	239	231	9.8	138	0.980	0.0514	40.2
2004	1130	0.068	21.3	16.3	21.1	18.1	4500	231	230	9.9	138	1.005	0.0511	41.0

Percent of 4500. lb. SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	56.9	12.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	57.7	12.5	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	74.2	13.7	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	81.5	13.3	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	84.3	11.2	0.0	0.0	0.0	0.0	98.7	1.3 0.0
1980	0.0	92.3	25.0	12.8	0.0	0.0	0.0	91.4	8.6 0.0
1981	0.0	94.4	31.1	41.3	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	89.6	28.2	31.6	0.0	0.0	0.0	100.0	0.0 0.0
1983	0.0	98.0	22.8	39.5	0.0	0.0	0.0	100.0	0.0 0.0
1984	0.0	93.0	29.0	1.9	0.0	0.0	0.0	100.0	0.0 0.0
1985	0.0	72.2	23.2	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1986	0.0	80.7	14.0	32.4	22.5	22.5	0.0	77.5	0.0 0.0
1987	0.0	70.4	16.4	22.7	7.0	7.0	0.0	93.0	0.0 0.0
1988	0.0	76.8	1.6	45.1	52.9	31.5	21.5	47.1	0.0 0.0
1989	0.0	74.0	1.9	47.3	60.2	34.2	26.0	39.8	0.0 0.0
1990	0.0	91.6	2.2	77.7	88.2	79.9	8.4	11.8	0.0 0.0
1991	0.0	99.3	14.6	83.3	98.6	97.9	0.7	1.4	0.0 0.0
1992	0.0	99.7	15.3	84.7	100.0	100.0	0.0	0.0	0.0 0.0
1993	0.0	99.7	13.1	86.9	100.0	100.0	0.0	0.0	0.0 0.0
1994	0.0	100.0	8.1	91.9	100.0	100.0	0.0	0.0	0.0 2.3
1995	0.0	90.4	5.7	94.3	100.0	100.0	0.0	0.0	0.0 21.5
1996	0.0	74.7	3.2	96.8	100.0	100.0	0.0	0.0	0.0 9.4
1997	0.0	79.0	2.5	97.5	100.0	100.0	0.0	0.0	0.0 7.5
1998	0.0	89.8	1.6	98.4	100.0	100.0	0.0	0.0	0.0 4.4
1999	0.0	91.2	0.9	99.1	100.0	100.0	0.0	0.0	0.0 9.9
2000	0.0	91.6	1.7	98.3	100.0	100.0	0.0	0.0	0.0 12.6
2001	0.0	91.7	2.1	97.9	100.0	100.0	0.0	0.0	0.0 39.6
2002	0.0	73.4	0.9	99.1	100.0	100.0	0.0	0.0	0.0 35.9
2003	0.8	65.8	0.4	99.6	100.0	100.0	0.0	0.0	0.0 54.5
2004	0.4	75.0	0.8	99.2	100.0	100.0	0.0	0.0	0.0 64.6

# Appendix H

Table H-32

Characteristics of 1975 to 2004 5000. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	67	0.007	11.1	9.4	9.4	9.4	5000	347	157	14.4	112	0.453	0.0311	23.6
1976	101	0.008	12.8	10.5	11.5	10.9	5000	357	151	15.0	110	0.421	0.0299	27.3
1977	66	0.005	13.6	11.2	12.0	11.5	5000	350	160	14.4	113	0.457	0.0317	29.0
1978	114	0.008	13.0	10.5	11.7	11.0	5000	370	168	13.7	115	0.454	0.0333	27.6
1979	172	0.012	11.4	9.5	9.9	9.6	5000	351	152	15.2	110	0.433	0.0303	24.2
1980	60	0.005	14.0	11.2	12.9	11.9	5000	343	159	14.3	112	0.463	0.0315	30.0
1981	43	0.004	15.3	12.2	14.1	13.0	5000	328	154	14.7	111	0.473	0.0306	32.9
1982	37	0.004	15.1	12.0	14.1	12.9	5000	330	156	14.6	112	0.475	0.0308	32.8
1983	54	0.005	15.7	12.3	15.0	13.4	5000	328	157	14.5	112	0.482	0.0313	34.1
1984	121	0.009	15.3	12.0	14.6	13.0	5000	330	163	14.1	114	0.497	0.0326	33.2
1985	133	0.009	15.7	12.3	15.0	13.4	5000	330	168	13.7	115	0.510	0.0336	33.9
1986	135	0.009	16.4	12.8	15.8	14.0	5000	324	163	14.1	114	0.503	0.0325	35.2
1987	97	0.007	15.7	12.3	15.0	13.4	5000	326	175	13.5	117	0.534	0.0349	33.9
1988	101	0.007	16.1	12.5	15.5	13.7	5000	330	181	13.2	119	0.544	0.0361	34.5
1989	112	0.008	15.9	12.4	15.4	13.6	5000	328	178	13.3	118	0.540	0.0356	34.3
1990	83	0.007	16.0	12.2	16.0	13.7	5000	331	184	12.9	120	0.553	0.0368	34.4
1991	51	0.004	15.8	12.2	15.6	13.5	5000	312	188	12.7	121	0.604	0.0374	33.9
1992	36	0.003	15.7	12.0	15.6	13.4	5000	292	174	13.5	117	0.621	0.0346	33.6
1993	46	0.003	16.1	12.4	16.0	13.8	5000	313	200	11.9	124	0.646	0.0398	34.6
1994	51	0.004	16.5	12.7	16.2	14.1	5000	310	202	11.8	125	0.659	0.0403	35.3
1995	70	0.005	17.0	13.0	16.8	14.5	5000	322	199	12.0	124	0.625	0.0396	36.3
1996	82	0.006	17.0	13.1	16.8	14.5	5000	318	216	11.3	129	0.685	0.0431	36.4
1997	119	0.008	18.0	13.8	17.8	15.4	5000	308	226	10.8	132	0.738	0.0453	38.6
1998	265	0.018	17.3	13.2	17.5	14.8	5000	317	223	10.9	131	0.705	0.0445	37.2
1999	356	0.023	17.4	13.3	17.4	14.9	5000	307	234	10.6	134	0.779	0.0467	37.5
2000	254	0.015	17.6	13.4	17.8	15.1	5000	295	229	10.7	132	0.784	0.0459	37.9
2001	217	0.014	17.8	13.5	18.0	15.2	5000	281	235	10.5	134	0.850	0.0470	38.3
2002	404	0.025	18.9	14.4	18.9	16.2	5000	255	244	10.2	137	0.976	0.0489	40.5
2003	849	0.054	18.9	14.3	19.2	16.2	5000	267	250	10.0	138	0.961	0.0501	40.6
2004	652	0.039	19.6	14.9	19.8	16.7	5000	259	263	9.6	142	1.034	0.0527	41.9

Percent of 5000. lb. SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	98.7	19.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	97.9	18.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	96.4	21.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	97.3	19.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	68.1	14.7	0.9	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	78.4	18.9	55.3	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	75.3	7.8	62.7	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	79.2	8.9	51.5	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	72.6	5.7	66.6	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	76.2	6.5	55.5	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	73.0	4.6	64.6	6.7	0.0	0.0	93.3	0.0	0.0
1986	0.0	72.8	4.9	76.8	21.1	21.1	0.0	78.9	0.0	0.0
1987	0.0	97.3	7.1	62.0	75.5	32.4	43.2	24.5	0.0	0.0
1988	0.0	99.1	6.3	59.4	97.9	54.9	42.9	2.1	0.0	0.0
1989	0.0	99.4	6.6	63.0	100.0	59.4	40.6	0.0	0.0	0.0
1990	0.0	100.0	4.8	86.4	100.0	63.3	36.7	0.0	0.0	0.0
1991	0.0	100.0	3.1	91.6	100.0	70.6	29.4	0.0	0.0	0.0
1992	0.0	99.9	4.7	94.1	100.0	97.4	2.6	0.0	0.0	0.0
1993	0.0	100.0	4.4	95.6	100.0	98.6	1.4	0.0	0.0	0.0
1994	0.0	100.0	3.4	96.6	100.0	98.5	1.5	0.0	0.0	31.5
1995	0.0	75.9	2.3	97.7	100.0	75.2	24.8	0.0	0.0	12.7
1996	0.0	72.0	2.6	97.4	100.0	100.0	0.0	0.0	0.0	22.5
1997	0.0	26.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	20.6
1998	0.0	58.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	54.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	68.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	2.2
2001	0.0	71.5	0.2	99.8	100.0	100.0	0.0	0.0	0.0	14.9
2002	0.0	88.4	4.5	95.5	100.0	100.0	0.0	0.0	0.0	51.7
2003	6.1	82.7	0.2	99.8	100.0	100.0	0.0	0.0	0.0	57.5
2004	0.0	79.7	0.1	99.9	100.0	100.0	0.0	0.0	0.0	68.8

# Appendix H

Table H-33

Characteristics of 1975 to 2004 5500. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	6	0.001	10.5	8.5	9.6	8.9	5500	429	210	12.5	123	0.486	0.0364	24.7
1976	7	0.001	11.2	9.1	10.2	9.6	5500	412	197	13.3	120	0.473	0.0342	26.4
1977	10	0.001	11.7	9.4	10.7	10.0	5500	419	193	13.4	119	0.458	0.0339	27.6
1978	12	0.001	11.8	9.6	10.6	10.1	5500	410	188	13.5	117	0.460	0.0331	27.7
1979	59	0.004	10.6	8.9	9.1	9.0	5500	405	176	14.5	114	0.432	0.0319	24.9
1980	6	0.000	13.8	11.0	12.9	11.7	5500	350	165	15.0	111	0.470	0.0295	32.3
1981	3	0.000	14.1	11.4	12.9	12.0	5500	350	175	14.3	114	0.500	0.0313	33.0
1982	23	0.002	21.2	16.5	20.4	18.0	5500	350	134	17.8	103	0.382	0.0240	50.5
1983	20	0.002	20.2	15.6	19.8	17.3	5500	372	139	17.4	104	0.375	0.0249	48.9
1984	21	0.001	17.9	13.9	17.4	15.3	5500	364	148	16.6	107	0.408	0.0266	43.6
1985	18	0.001	16.1	12.3	16.0	13.7	5500	355	159	15.5	110	0.449	0.0288	38.3
1986	18	0.001	15.7	12.0	15.7	13.4	5500	353	162	15.3	110	0.459	0.0292	37.2
1987	52	0.004	16.8	12.9	16.5	14.3	5500	350	209	12.5	123	0.596	0.0378	39.5
1988	65	0.004	16.5	12.7	16.3	14.1	5500	350	200	12.9	121	0.572	0.0364	38.9
1989	41	0.003	17.5	13.2	18.1	15.0	5500	350	209	12.4	123	0.596	0.0379	41.3
1990	41	0.003	17.3	13.0	17.9	14.8	5500	350	209	12.4	123	0.597	0.0380	40.8
1991	25	0.002	17.2	13.0	17.5	14.7	5500	350	209	12.4	123	0.597	0.0379	40.5
1992	45	0.004	16.3	12.5	16.2	13.9	5500	350	210	12.4	123	0.600	0.0381	38.3
1993	71	0.005	16.8	12.9	16.7	14.4	5500	350	210	12.4	123	0.600	0.0382	39.5
1994	92	0.007	16.8	12.9	16.6	14.3	5500	351	209	12.4	123	0.598	0.0381	39.5
1995	142	0.009	16.9	13.0	16.5	14.4	5500	350	205	12.6	122	0.586	0.0372	39.6
1996	141	0.011	17.4	13.4	17.3	14.9	5500	350	250	10.7	134	0.714	0.0454	40.9
1997	307	0.021	17.4	13.2	17.5	14.8	5500	334	238	11.2	131	0.713	0.0432	40.9
1998	273	0.019	17.0	12.9	17.1	14.5	5500	327	234	11.3	130	0.720	0.0426	40.0
1999	199	0.013	17.5	13.2	17.9	14.9	5500	333	252	10.7	134	0.759	0.0459	41.1
2000	302	0.018	18.2	14.0	18.0	15.6	5500	306	253	10.7	135	0.841	0.0459	42.9
2001	455	0.029	18.3	14.3	17.7	15.6	5500	308	259	10.5	136	0.850	0.0471	43.1
2002	278	0.017	18.4	14.0	18.4	15.7	5500	310	267	10.2	138	0.862	0.0486	43.2
2003	278	0.018	18.6	14.2	18.4	15.8	5500	300	267	10.3	138	0.890	0.0485	43.6
2004	413	0.025	18.5	14.2	18.3	15.8	5500	290	276	10.1	141	0.958	0.0501	43.5

Percent of 5500. lb. SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	84.6	15.4	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	72.3	9.9	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	77.0	8.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	79.0	8.2	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	26.5	21.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	84.1	0.0	100.0	0.0	0.0	0.0	100.0	0.0 0.0
1981	0.0	100.0	6.8	93.2	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	66.8	10.8	89.2	0.0	0.0	0.0	10.7	89.3 0.0
1983	0.0	68.3	1.3	98.7	0.0	0.0	0.0	24.9	75.1 0.0
1984	0.0	74.8	2.3	97.7	0.0	0.0	0.0	50.7	49.3 0.0
1985	0.0	100.0	2.8	97.2	0.0	0.0	0.0	83.1	16.9 0.0
1986	0.0	100.0	1.9	98.1	0.0	0.0	0.0	90.4	9.6 0.0
1987	0.0	37.9	0.2	99.8	98.4	0.0	98.4	0.0	1.6 0.0
1988	0.0	40.7	0.2	99.8	98.8	0.0	98.8	0.0	1.2 0.0
1989	0.0	2.2	0.0	100.0	98.6	0.0	98.6	0.0	1.4 0.0
1990	0.0	1.0	0.0	100.0	98.9	0.0	98.9	0.0	1.1 0.0
1991	0.0	1.3	0.0	100.0	98.6	0.0	98.6	0.0	1.4 0.0
1992	0.0	46.2	0.0	100.0	100.0	0.0	100.0	0.0	0.0 0.0
1993	0.0	35.6	0.0	100.0	100.0	0.0	100.0	0.0	0.0 0.0
1994	0.0	39.3	0.0	100.0	100.0	1.5	98.5	0.0	0.0 0.0
1995	0.0	66.5	0.0	100.0	100.0	0.0	100.0	0.0	0.0 0.0
1996	0.0	74.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
1997	0.0	85.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
1998	0.0	85.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0 3.4
1999	0.0	14.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0 0.0
2000	0.0	40.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0 21.5
2001	0.0	43.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0 12.1
2002	0.0	19.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0 28.8
2003	0.0	17.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0 27.8
2004	0.0	59.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0 37.7

# Appendix H

Table H-34

Characteristics of 1975 to 2004 6000. lb. SUVs

MODEL	SALES		<----	FUEL	ECONOMY	----->	WGHT	ENGINE		0-60	TOP	HP/	HP/	TON
YEAR	(000)	FRAC	LAB	ADJ	ADJ	ADJ	LB	CID	HP	TIME	SPD	CID	WT	-MPG
			55/45	CITY	HWY	55/45								
1975	0	0.000	10.3	8.3	9.3	8.7	6000	400	170	15.7	110	0.402	0.0196	26.2
1976	1	0.000	11.9	9.5	11.0	10.1	6000	400	170	15.6	110	0.421	0.0268	30.4
1977	1	0.000	11.9	9.5	11.0	10.1	6000	400	180	15.0	113	0.448	0.0286	30.4
1978	1	0.000	11.4	9.2	10.2	9.7	6000	400	180	15.0	112	0.448	0.0282	29.0
1980	3	0.000	13.4	10.3	13.2	11.4	6000	350	165	16.1	109	0.470	0.0264	34.2
1982	4	0.000	21.2	16.5	20.5	18.1	6000	350	130	19.5	100	0.371	0.0215	54.2
1983	4	0.000	20.8	16.0	20.4	17.7	6000	379	130	19.5	100	0.343	0.0214	53.2
1984	4	0.000	21.0	16.1	20.8	17.9	6000	379	130	19.5	100	0.342	0.0211	53.8
1985	7	0.000	21.4	16.2	21.7	18.3	6000	378	131	19.4	100	0.348	0.0212	55.3
1986	5	0.000	22.1	16.8	22.1	18.8	6000	379	130	19.5	100	0.343	0.0212	56.7
1987	3	0.000	20.9	16.1	20.7	17.9	6000	376	137	18.9	102	0.366	0.0215	54.4
1988	3	0.000	18.3	14.1	18.0	15.6	6000	368	162	16.9	108	0.444	0.0258	48.4
1989	32	0.002	15.8	12.1	15.6	13.5	6000	351	206	13.6	119	0.586	0.0341	40.6
1990	32	0.003	16.0	12.2	15.9	13.6	6000	351	206	13.5	119	0.588	0.0342	41.1
1991	18	0.001	15.7	12.1	15.5	13.4	6000	351	207	13.5	119	0.591	0.0344	40.3
1992	21	0.002	14.9	11.3	15.0	12.7	6000	350	210	13.3	120	0.600	0.0350	38.1
1993	49	0.004	15.8	12.1	15.7	13.5	6000	350	210	13.3	120	0.600	0.0350	40.5
1994	60	0.004	16.1	12.5	15.5	13.7	6000	350	210	13.3	120	0.600	0.0350	41.1
1995	61	0.004	15.7	12.1	15.4	13.4	6000	350	210	13.3	120	0.599	0.0349	40.3
1996	58	0.004	16.8	12.7	16.9	14.3	6000	350	250	11.5	130	0.713	0.0416	43.0
1997	74	0.005	16.7	12.8	16.6	14.2	6000	350	250	11.5	130	0.713	0.0416	42.7
1998	50	0.003	16.1	12.2	16.4	13.8	6000	323	230	12.3	125	0.715	0.0383	41.4
1999	166	0.011	16.5	12.5	16.9	14.1	6000	319	237	12.1	127	0.747	0.0395	42.4
2000	269	0.016	16.6	12.8	16.3	14.2	6000	325	257	11.3	132	0.795	0.0429	42.6
2001	282	0.018	16.6	12.8	16.3	14.1	6000	327	271	10.8	135	0.830	0.0452	42.5
2002	453	0.028	17.7	13.5	17.7	15.1	6000	332	294	10.2	141	0.885	0.0491	45.5
2003	633	0.041	17.6	13.4	17.8	15.1	6000	324	277	10.6	137	0.854	0.0461	45.3
2004	617	0.037	17.8	13.5	17.8	15.2	6000	329	287	10.4	139	0.873	0.0479	45.5

Percent of 6000. lb. SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	100.0	12.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	100.0	12.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	100.0	11.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	100.0	15.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	3.4	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	100.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	100.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	100.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	47.3	0.0	100.0	0.0	0.0	0.0	4.1	95.9	0.0
1986	0.0	49.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
1987	0.0	56.8	9.1	90.9	9.1	0.0	9.1	0.0	90.9	0.0
1988	0.0	70.0	7.3	92.7	37.7	0.0	37.7	0.0	62.3	0.0
1989	0.0	97.2	1.0	99.0	94.6	0.0	94.6	0.0	5.4	0.0
1990	0.0	97.5	0.7	99.3	95.2	0.0	95.2	0.0	4.8	0.0
1991	0.0	96.2	0.0	100.0	96.1	0.0	96.1	0.0	3.9	0.0
1992	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1993	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1994	0.0	100.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1995	0.0	100.0	0.0	100.0	100.0	1.0	99.0	0.0	0.0	0.0
1996	0.0	100.0	0.0	100.0	99.5	99.5	0.0	0.0	0.5	0.0
1997	0.0	100.0	0.0	100.0	99.6	99.6	0.0	0.0	0.4	0.0
1998	0.0	100.0	0.0	100.0	99.7	99.7	0.0	0.0	0.3	13.0
1999	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	19.5
2000	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	22.7
2001	0.0	94.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	17.7
2002	0.0	84.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	7.3
2003	0.0	60.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.5
2004	0.0	79.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	9.7

# Appendix H

Table H-35 Characteristics of 1975 to 2004 6500. lb. SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1991	1	0.000	20.2	15.1	20.8	17.2	6500	379	140	19.6	101	0.368	0.0194	56.1

Percent of 6500. lb. SUVs:

MODEL YEAR	DRIVE FRONT	TRAIN 4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1991	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0



# Appendix H

Table H-36 Characteristics of 1975 to 2004 2000. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1980	0	0.000	25.2	20.3	22.9	21.4	2000	49	41	19.7	89	0.835	0.0118	21.4
1981	0	0.000	25.2	20.3	22.9	21.4	2000	49	41	19.7	89	0.789	0.0000	21.4

Percent of 2000. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1980	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix H

Table H-37 Characteristics of 1975 to 2004 2250. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	0	0.000	25.0	20.1	22.9	21.2	2250	49	41	21.6	88	0.832	0.0105	23.9
1980	25	0.002	32.0	25.3	30.0	27.2	2250	94	64	15.9	99	0.677	0.0282	32.4
1981	24	0.002	41.5	33.2	38.1	35.2	2250	97	52	17.9	93	0.536	0.0230	39.7
1982	11	0.001	43.1	35.7	37.6	36.5	2250	96	52	18.0	93	0.539	0.0229	41.2
1983	1	0.000	39.2	32.6	34.0	33.2	2250	91	51	18.3	93	0.569	0.0207	39.1
1984	0	0.000	28.8	25.3	23.1	24.2	2250	59	45	20.1	90	0.761	0.0163	27.3

Percent of 2250. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	100.0	0.0	100.0	0.0	54.6	0.0	0.0	0.0	45.4	0.0
1981	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1982	98.8	1.2	100.0	0.0	0.0	0.0	0.0	1.2	98.8	0.0
1983	84.5	15.5	100.0	0.0	0.0	0.0	0.0	15.5	84.5	0.0
1984	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix H

Table H-38 Characteristics of 1975 to 2004 2500. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1978	23	0.002	27.2	21.2	26.3	23.2	2500	97	67	16.0	98	0.691	0.0268	29.1
1979	39	0.003	27.5	21.7	26.1	23.5	2500	97	67	16.0	98	0.691	0.0268	29.4
1980	16	0.001	25.8	19.9	25.2	22.0	2500	97	68	15.8	99	0.701	0.0271	27.5
1981	27	0.003	28.4	22.4	26.7	24.2	2500	108	73	14.9	101	0.683	0.0292	30.2
1982	25	0.003	29.7	23.1	28.8	25.3	2500	123	80	14.0	104	0.655	0.0318	31.7
1983	21	0.002	32.6	24.6	33.1	27.8	2500	128	86	13.3	107	0.670	0.0339	34.9
1984	15	0.001	28.1	22.2	26.3	23.9	2500	102	70	16.4	99	0.699	0.0276	30.1
1985	4	0.000	29.6	23.5	27.4	25.2	2500	109	73	15.0	101	0.669	0.0287	31.5
1986	5	0.000	30.0	23.8	28.0	25.5	2500	109	73	15.0	101	0.670	0.0290	31.9
1987	1	0.000	29.8	23.7	27.7	25.3	2500	109	73	15.0	101	0.668	0.0290	31.7

Percent of 2500. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1978	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	9.5	90.5	90.5	0.0	9.5	0.0	0.0	90.5	0.0	0.0
1981	34.2	65.8	100.0	0.0	34.2	0.0	0.0	65.8	0.0	0.0
1982	71.2	28.8	83.6	0.0	13.5	0.0	0.0	86.5	0.0	0.0
1983	78.8	21.2	95.7	4.3	4.2	0.0	0.0	95.8	0.0	0.0
1984	36.0	64.0	96.0	4.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	100.0	95.6	4.4	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix H

Table H-39

Characteristics of 1975 to 2004 2750. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	156	0.015	22.7	17.4	22.4	19.4	2750	119	95	13.3	108	0.799	0.0346	26.7
1976	162	0.013	24.1	18.6	23.8	20.6	2750	120	97	13.1	109	0.815	0.0354	28.4
1977	226	0.016	25.7	20.0	24.7	21.9	2750	121	97	13.2	109	0.801	0.0352	30.2
1978	183	0.013	25.8	20.7	23.7	22.0	2750	121	97	13.1	109	0.801	0.0352	30.3
1979	240	0.017	22.7	17.8	21.6	19.3	2750	126	91	13.7	106	0.722	0.0330	27.0
1980	324	0.029	25.2	20.0	23.4	21.4	2750	126	91	13.6	107	0.728	0.0332	29.7
1981	222	0.021	27.9	22.2	26.0	23.8	2750	130	90	13.8	106	0.695	0.0328	32.9
1982	227	0.023	28.3	22.4	26.3	24.0	2750	130	91	13.7	106	0.699	0.0330	33.3
1983	340	0.033	28.8	22.9	26.7	24.5	2750	132	87	14.2	105	0.658	0.0314	33.9
1984	314	0.022	28.2	22.5	26.1	24.0	2750	130	87	14.2	105	0.669	0.0317	33.3
1985	238	0.016	29.9	23.7	27.8	25.4	2750	130	90	13.8	106	0.692	0.0328	35.1
1986	311	0.020	29.5	23.4	27.5	25.1	2750	132	92	13.6	107	0.694	0.0334	34.7
1987	240	0.016	29.7	23.5	27.9	25.3	2750	134	93	13.5	107	0.694	0.0338	34.9
1988	120	0.008	27.8	22.1	25.8	23.6	2750	136	98	12.9	109	0.721	0.0355	32.6
1989	76	0.005	27.6	22.1	25.5	23.5	2750	135	97	12.9	109	0.721	0.0354	32.4
1990	31	0.002	26.0	21.1	23.4	22.1	2750	144	102	12.4	111	0.708	0.0371	30.3
1992	19	0.002	28.2	22.2	26.5	24.0	2750	144	112	11.6	115	0.778	0.0407	33.0

Percent of 2750. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	88.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	80.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	79.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	86.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	85.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	86.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	90.3	0.0	0.0	0.0	0.0	98.6	1.4	0.0
1982	1.4	0.0	87.1	4.9	0.0	0.0	0.0	98.3	1.7	0.0
1983	4.0	0.1	89.4	0.2	0.1	0.0	0.0	99.1	0.9	0.0
1984	2.2	0.1	88.1	0.3	1.2	0.0	0.0	98.1	0.7	0.0
1985	0.0	0.0	92.5	0.0	1.5	0.0	0.0	98.1	0.4	0.0
1986	0.0	0.0	89.0	0.0	0.0	0.0	0.0	99.6	0.4	0.0
1987	0.0	0.0	90.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1988	0.0	0.0	99.4	0.0	0.6	0.6	0.0	99.4	0.0	0.0
1989	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1990	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1992	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix H

Table H-40 Characteristics of 1975 to 2004 3000. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	60	0.006	20.7	16.4	19.4	17.6	3000	107	70	18.2	96	0.667	0.0233	26.6
1976	63	0.005	22.3	17.5	21.2	19.0	3000	108	70	18.3	96	0.667	0.0233	29.0
1977	78	0.006	28.6	22.4	27.2	24.3	3000	122	75	17.2	98	0.629	0.0248	37.0
1978	124	0.009	27.5	21.9	25.5	23.4	3000	123	77	16.7	99	0.631	0.0257	35.5
1979	174	0.013	23.9	18.9	22.4	20.3	3000	124	80	16.2	100	0.649	0.0265	31.2
1980	169	0.015	23.6	18.8	21.9	20.1	3000	127	84	15.5	101	0.666	0.0280	30.7
1981	211	0.020	27.1	21.6	25.2	23.1	3000	136	83	16.0	101	0.613	0.0276	35.6
1982	353	0.036	26.4	20.8	25.0	22.5	3000	156	96	14.4	106	0.615	0.0320	34.4
1983	377	0.037	26.4	20.7	25.0	22.5	3000	149	93	14.7	105	0.626	0.0307	34.3
1984	475	0.034	26.6	20.8	25.4	22.6	3000	147	93	14.6	105	0.636	0.0309	34.5
1985	582	0.040	26.3	20.6	25.0	22.4	3000	153	100	13.6	108	0.656	0.0334	33.9
1986	784	0.051	26.8	21.0	25.4	22.8	3000	144	100	13.8	108	0.689	0.0332	34.4
1987	728	0.049	27.0	21.0	25.9	23.0	3000	146	100	13.8	108	0.684	0.0334	34.6
1988	715	0.047	27.4	21.5	26.2	23.4	3000	146	98	14.0	107	0.672	0.0328	35.3
1989	575	0.040	27.6	21.7	26.2	23.5	3000	146	102	13.5	109	0.699	0.0340	35.4
1990	413	0.033	28.2	22.3	26.5	24.0	3000	143	109	12.8	112	0.765	0.0365	36.1
1991	577	0.046	27.5	21.6	26.2	23.4	3000	149	109	12.8	112	0.735	0.0364	35.3
1992	318	0.026	27.1	21.2	25.9	23.1	3000	148	112	12.5	113	0.760	0.0374	34.8
1993	364	0.028	27.4	21.4	26.3	23.3	3000	150	115	12.2	114	0.771	0.0384	35.2
1994	275	0.020	28.0	22.1	26.4	23.9	3000	143	117	12.0	115	0.818	0.0390	35.9
1995	171	0.011	27.3	21.6	25.6	23.3	3000	145	128	11.2	119	0.883	0.0428	34.9
1996	103	0.008	27.2	21.5	25.6	23.1	3000	148	139	10.5	123	0.938	0.0462	34.8
1997	66	0.005	26.6	21.1	25.0	22.7	3000	146	134	10.8	121	0.917	0.0446	34.1
1998	80	0.006	27.3	21.6	25.5	23.2	3000	149	142	10.3	125	0.954	0.0473	34.9
1999	50	0.003	27.2	21.6	25.4	23.2	3000	149	142	10.3	125	0.953	0.0473	34.8
2000	40	0.002	26.7	21.3	24.6	22.7	3000	149	142	10.3	125	0.953	0.0473	34.1
2001	23	0.001	27.1	21.7	24.8	23.0	3000	149	142	10.3	125	0.953	0.0473	34.6
2002	20	0.001	27.7	21.8	26.0	23.5	3000	149	142	10.3	125	0.953	0.0473	35.3
2003	21	0.001	27.7	21.9	25.9	23.5	3000	149	142	10.3	125	0.953	0.0473	35.3
2004	19	0.001	27.7	21.9	26.0	23.6	3000	149	142	10.3	125	0.953	0.0473	35.4

Percent of 3000. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	69.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	84.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	88.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	88.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	31.7	88.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	56.9	93.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	44.0	93.7	0.1	0.0	0.0	0.0	74.5	25.5	0.0
1982	0.0	21.0	74.1	22.7	0.0	0.0	0.0	83.0	17.0	0.0
1983	0.0	16.4	73.6	9.6	0.0	0.0	0.0	91.2	8.8	0.0
1984	0.0	9.4	74.8	11.5	3.4	0.0	0.0	92.0	4.7	0.0
1985	0.0	9.9	68.8	26.0	30.8	0.0	0.0	67.4	1.8	0.0
1986	0.0	4.1	78.9	16.7	52.9	19.3	33.6	46.2	0.9	0.0
1987	0.0	4.6	77.4	15.9	60.2	20.3	39.9	39.4	0.4	0.0
1988	0.0	1.0	77.9	15.9	65.3	28.3	37.0	34.7	0.0	0.0
1989	0.0	0.0	82.7	11.6	76.2	31.0	45.2	23.8	0.0	0.0
1990	0.0	0.0	86.3	10.7	80.9	70.8	10.1	19.1	0.0	0.0
1991	0.0	0.0	88.1	9.0	89.4	51.5	37.9	10.6	0.0	0.0
1992	0.0	0.0	85.9	9.4	81.3	53.1	28.2	18.7	0.0	0.0
1993	0.0	0.0	87.3	8.3	88.4	63.2	25.2	11.6	0.0	0.0
1994	0.0	0.0	85.5	5.3	92.5	92.5	0.0	7.5	0.0	0.0
1995	0.0	0.0	79.0	9.2	100.0	100.0	0.0	0.0	0.0	18.1
1996	0.0	0.0	72.2	2.1	100.0	100.0	0.0	0.0	0.0	60.9
1997	0.0	0.0	82.0	18.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	54.3	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	0.0	0.0	52.2	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	0.0	0.0	47.6	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	0.0	0.0	47.6	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	0.0	0.0	47.2	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	0.0	0.0	45.1	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	0.0	0.0	46.9	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix H

Table H-41 Characteristics of 1975 to 2004 3500. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	39	0.004	15.1	11.9	14.4	12.9	3500	348	156	11.1	124	0.446	0.0437	22.7
1976	71	0.006	16.5	13.1	15.5	14.1	3500	319	138	12.3	117	0.440	0.0389	25.0
1977	65	0.005	17.1	13.6	15.9	14.6	3500	328	143	12.1	119	0.441	0.0405	25.8
1978	89	0.006	18.5	14.6	17.4	15.8	3500	275	132	12.9	115	0.496	0.0374	27.8
1979	22	0.002	18.9	15.1	17.5	16.1	3500	208	106	15.0	106	0.531	0.0299	28.6
1980	53	0.005	18.7	15.2	16.8	15.9	3500	213	113	14.3	108	0.557	0.0321	28.1
1981	105	0.010	21.3	16.9	19.8	18.1	3500	247	112	14.2	108	0.472	0.0317	31.9
1982	120	0.012	22.3	17.7	21.0	19.0	3500	210	108	14.4	107	0.545	0.0308	33.4
1983	231	0.022	23.4	18.2	22.5	19.9	3500	178	107	14.6	106	0.618	0.0303	35.1
1984	356	0.025	22.7	17.8	21.7	19.4	3500	174	104	15.0	105	0.615	0.0296	34.2
1985	342	0.024	23.3	18.3	22.3	19.9	3500	180	109	14.3	107	0.641	0.0312	35.0
1986	432	0.028	23.2	18.2	22.1	19.8	3500	167	119	13.5	111	0.726	0.0340	34.8
1987	478	0.032	22.9	17.8	22.1	19.5	3500	178	121	13.4	111	0.696	0.0346	34.3
1988	491	0.032	22.8	17.7	22.0	19.5	3500	183	129	12.7	114	0.719	0.0370	34.2
1989	439	0.030	22.6	17.7	21.8	19.3	3500	195	132	12.6	115	0.696	0.0376	34.0
1990	316	0.025	23.1	18.0	22.4	19.7	3500	186	135	12.3	116	0.741	0.0384	34.6
1991	413	0.033	23.9	18.5	23.3	20.4	3500	199	137	12.1	117	0.712	0.0392	35.9
1992	413	0.034	24.7	19.1	24.1	21.0	3500	187	131	12.6	115	0.719	0.0373	37.1
1993	444	0.034	24.5	19.0	23.9	20.9	3500	186	134	12.4	116	0.738	0.0384	36.9
1994	733	0.052	25.3	19.6	24.6	21.6	3500	178	132	12.7	115	0.752	0.0376	38.1
1995	578	0.038	26.3	20.3	25.6	22.4	3500	167	131	12.6	115	0.804	0.0374	39.6
1996	568	0.043	26.3	20.4	25.7	22.5	3500	157	129	12.8	114	0.828	0.0367	39.6
1997	457	0.032	27.0	21.0	26.2	23.0	3500	154	123	13.1	112	0.815	0.0352	40.7
1998	630	0.044	26.1	20.2	25.4	22.2	3500	157	130	12.6	115	0.840	0.0373	39.4
1999	495	0.032	24.9	19.2	24.3	21.2	3500	162	133	12.4	116	0.827	0.0380	37.6
2000	545	0.033	24.9	19.2	24.3	21.2	3500	163	135	12.3	116	0.842	0.0386	37.5
2001	347	0.022	24.5	19.1	23.8	20.9	3500	161	138	12.1	118	0.867	0.0395	37.0
2002	213	0.013	24.9	19.5	23.8	21.2	3500	168	146	11.5	120	0.884	0.0417	37.6
2003	281	0.018	25.8	19.9	25.3	22.0	3500	154	136	12.3	117	0.896	0.0388	38.8
2004	130	0.008	25.9	20.2	24.7	22.0	3500	158	145	11.5	120	0.930	0.0415	38.9

Percent of 3500. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	5.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	11.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	9.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	20.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	35.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	42.1	49.3	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	6.1	62.3	31.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	31.5	80.0	16.2	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	59.4	66.6	28.0	0.1	0.0	0.0	98.3	1.6	0.0
1984	0.0	62.0	67.5	25.4	0.0	0.0	0.0	97.5	2.5	0.0
1985	0.0	60.9	71.5	25.0	17.7	0.0	1.8	81.6	0.7	0.0
1986	0.0	67.4	69.0	30.2	65.7	35.6	30.1	34.0	0.3	0.0
1987	0.0	56.2	55.2	44.0	58.5	28.5	30.0	41.3	0.2	0.0
1988	0.0	55.6	54.0	45.2	95.2	54.5	40.6	4.8	0.0	0.0
1989	0.0	37.3	51.7	47.9	97.9	53.8	44.0	2.1	0.0	0.0
1990	0.0	30.7	52.7	47.3	100.0	77.5	22.5	0.0	0.0	0.0
1991	0.0	21.3	52.4	47.6	100.0	59.0	41.0	0.0	0.0	0.0
1992	0.0	18.4	65.1	34.9	100.0	70.5	29.5	0.0	0.0	0.0
1993	0.0	19.1	64.4	35.6	100.0	76.2	23.8	0.0	0.0	0.0
1994	0.0	9.0	63.0	37.0	100.0	86.5	13.5	0.0	0.0	0.2
1995	0.0	7.7	69.5	30.5	100.0	83.1	16.9	0.0	0.0	6.9
1996	0.0	7.5	66.2	33.8	100.0	100.0	0.0	0.0	0.0	8.9
1997	0.0	1.0	67.9	32.1	100.0	100.0	0.0	0.0	0.0	0.5
1998	0.0	8.5	57.8	42.2	100.0	100.0	0.0	0.0	0.0	18.9
1999	0.0	7.5	46.8	53.2	100.0	100.0	0.0	0.0	0.0	16.0
2000	0.0	5.4	41.0	59.0	100.0	100.0	0.0	0.0	0.0	19.7
2001	0.0	2.8	40.3	57.0	100.0	100.0	0.0	0.0	0.0	34.5
2002	0.0	0.0	34.7	60.6	100.0	100.0	0.0	0.0	0.0	54.8
2003	0.0	1.5	32.0	64.3	100.0	100.0	0.0	0.0	0.0	26.8
2004	0.0	0.0	39.1	55.3	100.0	100.0	0.0	0.0	0.0	72.8

# Appendix H

Table H-42

Characteristics of 1975 to 2004 4000. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	733	0.072	14.1	11.0	13.6	12.0	4000	330	143	13.2	115	0.433	0.0357	24.6
1976	906	0.073	15.3	12.2	14.3	13.1	4000	327	135	13.8	112	0.412	0.0337	26.8
1977	855	0.061	16.7	13.4	15.3	14.2	4000	322	144	13.2	115	0.445	0.0358	28.9
1978	951	0.066	16.1	13.0	14.4	13.6	4000	318	144	13.1	115	0.452	0.0359	28.0
1979	606	0.044	15.9	12.9	14.4	13.5	4000	305	142	13.2	114	0.465	0.0355	27.4
1980	439	0.039	18.7	14.9	17.4	15.9	4000	282	127	14.3	109	0.451	0.0316	32.1
1981	587	0.056	19.2	15.2	17.9	16.3	4000	286	128	14.2	110	0.450	0.0319	33.0
1982	396	0.041	18.7	14.9	17.4	15.9	4000	292	130	14.2	110	0.446	0.0324	32.2
1983	332	0.032	18.5	14.7	17.4	15.8	4000	291	130	14.2	110	0.446	0.0323	32.0
1984	406	0.029	18.5	14.6	17.4	15.7	4000	287	127	14.5	109	0.442	0.0316	32.0
1985	385	0.027	18.5	14.8	17.2	15.8	4000	292	139	13.5	114	0.479	0.0348	31.9
1986	465	0.030	19.2	15.3	17.8	16.3	4000	276	134	13.8	112	0.505	0.0335	32.9
1987	271	0.018	19.1	15.2	17.8	16.3	4000	273	141	13.3	114	0.530	0.0352	32.8
1988	370	0.024	19.7	15.4	18.9	16.8	4000	282	154	12.3	118	0.555	0.0384	33.7
1989	369	0.026	20.1	15.6	19.6	17.2	4000	269	159	12.1	120	0.607	0.0396	34.6
1990	342	0.027	20.2	15.5	19.8	17.2	4000	271	162	11.9	121	0.612	0.0404	34.6
1991	353	0.028	20.4	15.7	20.0	17.4	4000	262	159	12.1	120	0.622	0.0397	34.9
1992	332	0.027	20.4	15.7	20.2	17.4	4000	250	154	12.4	118	0.628	0.0385	35.0
1993	313	0.024	20.5	15.9	20.1	17.5	4000	236	155	12.3	119	0.669	0.0387	35.2
1994	469	0.034	20.9	16.2	20.5	17.9	4000	239	167	11.6	122	0.712	0.0416	35.9
1995	292	0.019	20.9	16.3	20.3	17.8	4000	230	164	11.7	122	0.727	0.0410	35.8
1996	286	0.022	21.6	16.7	21.2	18.4	4000	239	173	11.2	124	0.734	0.0431	37.0
1997	425	0.029	21.5	16.5	21.1	18.3	4000	246	184	10.7	128	0.756	0.0461	36.7
1998	437	0.030	21.3	16.4	20.8	18.2	4000	236	178	11.0	126	0.766	0.0445	36.4
1999	422	0.028	20.7	16.0	20.1	17.6	4000	231	172	11.3	124	0.755	0.0431	35.4
2000	481	0.029	20.8	16.2	20.2	17.8	4000	222	171	11.4	124	0.779	0.0428	35.6
2001	436	0.028	20.7	16.1	19.9	17.6	4000	226	184	10.7	128	0.819	0.0459	35.4
2002	385	0.024	20.9	16.4	19.8	17.8	4000	220	183	10.8	128	0.836	0.0456	35.7
2003	419	0.027	21.5	16.8	20.6	18.3	4000	212	176	11.1	126	0.840	0.0441	36.7
2004	401	0.024	22.0	17.1	21.3	18.8	4000	202	185	10.7	129	0.923	0.0463	37.8

Percent of 4000. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	0.7	33.1	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	1.0	33.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	1.2	30.6	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	1.1	30.5	0.0	0.0	0.0	0.0	99.3	0.7 0.0
1979	0.0	6.3	33.8	4.8	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	5.6	51.5	17.4	0.0	0.0	0.0	100.0	0.0 0.0
1981	0.0	7.3	44.3	35.1	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	9.4	32.9	28.4	0.0	0.0	0.0	100.0	0.0 0.0
1983	0.0	4.8	27.0	49.0	0.0	0.0	0.0	99.8	0.2 0.0
1984	0.0	6.3	34.2	39.9	0.0	0.0	0.0	100.0	0.0 0.0
1985	0.0	7.8	26.7	32.0	13.8	0.0	0.0	86.2	0.0 0.0
1986	0.0	13.5	36.8	33.5	39.0	28.0	11.0	61.0	0.0 0.0
1987	0.1	17.6	40.2	35.5	66.5	48.8	17.6	33.5	0.0 0.0
1988	0.0	18.0	43.2	40.1	100.0	39.6	60.4	0.0	0.0 0.0
1989	0.0	37.0	39.8	54.8	100.0	28.4	71.6	0.0	0.0 0.0
1990	0.0	27.6	36.9	57.8	100.0	31.6	68.4	0.0	0.0 0.0
1991	0.0	40.0	42.4	57.6	100.0	36.0	64.0	0.0	0.0 0.0
1992	0.0	32.0	37.3	62.7	100.0	54.4	45.6	0.0	0.0 0.0
1993	0.0	42.3	38.0	62.0	100.0	68.8	31.2	0.0	0.0 0.0
1994	0.0	49.8	40.5	59.5	100.0	61.2	38.8	0.0	0.0 0.0
1995	0.0	53.8	38.4	61.6	100.0	77.2	22.8	0.0	0.0 17.0
1996	0.0	44.0	31.7	68.3	100.0	100.0	0.0	0.0	0.0 17.3
1997	0.0	26.0	31.3	68.7	100.0	100.0	0.0	0.0	0.0 4.8
1998	0.0	42.1	35.5	64.5	100.0	100.0	0.0	0.0	0.0 15.5
1999	0.0	52.3	26.1	73.9	100.0	100.0	0.0	0.0	0.0 15.9
2000	0.0	45.0	21.0	79.0	100.0	100.0	0.0	0.0	0.0 13.6
2001	0.0	43.1	16.7	83.3	100.0	100.0	0.0	0.0	0.0 21.6
2002	0.0	38.1	19.7	80.3	100.0	100.0	0.0	0.0	0.0 40.0
2003	0.0	34.5	17.7	82.3	100.0	100.0	0.0	0.0	0.0 32.7
2004	0.0	41.9	20.0	80.0	100.0	100.0	0.0	0.0	0.0 52.5

# Appendix H

Table H-43 Characteristics of 1975 to 2004 4500. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	180	0.018	11.8	9.6	10.6	10.0	4500	365	166	12.9	118	0.450	0.0366	22.6
1976	375	0.030	12.6	10.3	11.3	10.7	4500	365	161	13.2	117	0.439	0.0356	24.3
1977	539	0.038	13.7	11.2	12.2	11.6	4500	369	169	12.6	119	0.458	0.0375	26.3
1978	578	0.040	13.6	11.2	12.1	11.5	4500	361	163	12.9	117	0.453	0.0361	26.3
1979	631	0.045	14.2	11.8	12.7	12.2	4500	320	145	14.3	112	0.458	0.0323	27.9
1980	247	0.022	15.7	12.6	14.3	13.3	4500	323	147	14.1	112	0.455	0.0323	30.3
1981	210	0.020	16.8	13.4	15.5	14.3	4500	314	147	14.0	112	0.471	0.0325	32.6
1982	193	0.020	17.1	13.7	15.7	14.5	4500	311	156	13.4	115	0.504	0.0345	33.2
1983	247	0.024	17.0	13.5	15.8	14.5	4500	310	151	13.8	113	0.488	0.0333	33.0
1984	385	0.027	16.8	13.4	15.6	14.3	4500	310	150	13.9	113	0.483	0.0331	32.6
1985	428	0.030	16.8	13.4	15.5	14.3	4500	310	159	13.1	116	0.513	0.0353	32.4
1986	439	0.029	17.4	13.9	16.2	14.8	4500	307	155	13.5	115	0.503	0.0343	33.6
1987	353	0.024	17.2	13.6	16.1	14.6	4500	316	168	12.7	119	0.531	0.0373	33.2
1988	596	0.039	17.8	13.9	17.1	15.1	4500	322	174	12.4	120	0.539	0.0385	34.3
1989	641	0.044	17.8	13.9	17.2	15.2	4500	320	174	12.4	121	0.542	0.0387	34.3
1990	506	0.040	18.0	13.9	17.5	15.3	4500	318	171	12.5	120	0.536	0.0380	34.8
1991	435	0.035	18.1	14.0	17.9	15.5	4500	315	176	12.3	121	0.555	0.0389	35.0
1992	513	0.042	18.4	14.1	18.3	15.7	4500	310	171	12.6	120	0.550	0.0379	35.5
1993	614	0.046	19.0	14.5	18.9	16.2	4500	306	177	12.2	121	0.579	0.0393	36.6
1994	676	0.048	18.7	14.3	18.6	16.0	4500	312	186	11.7	124	0.598	0.0413	36.0
1995	744	0.049	18.6	14.2	18.4	15.8	4500	308	182	11.9	123	0.593	0.0403	35.8
1996	543	0.041	18.9	14.5	18.7	16.1	4500	305	201	11.1	129	0.660	0.0446	36.4
1997	611	0.042	19.8	15.1	19.7	16.9	4500	283	212	10.4	132	0.753	0.0471	38.1
1998	585	0.040	19.8	15.2	19.8	16.9	4500	289	216	10.3	133	0.752	0.0481	38.2
1999	625	0.041	19.9	15.3	19.6	16.9	4500	287	224	10.1	136	0.780	0.0497	38.3
2000	766	0.046	20.0	15.4	19.6	17.1	4500	281	224	10.1	136	0.798	0.0498	38.5
2001	625	0.040	20.0	15.4	19.6	17.0	4500	261	210	10.6	131	0.807	0.0467	38.4
2002	555	0.034	19.8	15.3	19.4	16.9	4500	262	213	10.5	132	0.811	0.0472	38.1
2003	464	0.030	20.1	15.6	19.6	17.2	4500	261	211	10.6	132	0.811	0.0470	38.7
2004	365	0.022	20.5	15.8	20.1	17.5	4500	254	213	10.5	132	0.843	0.0473	39.3

Percent of 4500. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	55.4	51.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	64.5	45.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	58.2	31.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	68.5	31.7	0.0	0.0	0.0	0.0	96.5	3.5	0.0
1979	0.0	16.4	25.6	0.0	0.0	0.0	0.0	99.7	0.3	0.0
1980	0.0	30.9	32.0	44.4	0.0	0.0	0.0	97.4	2.6	0.0
1981	0.0	25.2	18.6	60.3	0.0	0.0	0.0	98.2	1.8	0.0
1982	0.0	20.0	15.7	64.1	0.0	0.0	0.0	99.2	0.8	0.0
1983	0.0	34.0	21.4	55.4	0.0	0.0	0.0	99.1	0.9	0.0
1984	0.0	34.6	18.6	58.4	0.0	0.0	0.0	99.6	0.4	0.0
1985	0.0	33.6	16.9	64.9	8.0	0.0	0.0	92.0	0.0	0.0
1986	0.0	36.8	19.9	66.3	22.3	22.3	0.0	77.7	0.0	0.0
1987	0.0	35.5	21.6	45.7	87.3	41.5	45.8	12.7	0.1	0.0
1988	0.0	38.3	20.3	61.7	99.4	35.5	63.9	0.5	0.1	0.0
1989	0.0	37.7	32.4	58.1	99.9	45.1	54.7	0.0	0.1	0.0
1990	0.0	34.2	25.5	66.5	99.9	51.7	48.2	0.0	0.1	0.0
1991	0.0	28.6	23.7	75.3	99.9	48.0	51.9	0.0	0.1	0.0
1992	0.0	21.1	27.9	72.0	99.9	59.3	40.6	0.0	0.1	0.0
1993	0.0	16.9	19.5	80.5	100.0	55.4	44.6	0.0	0.0	0.0
1994	0.0	14.7	17.1	82.9	100.0	59.5	40.5	0.0	0.0	0.0
1995	0.0	18.4	26.6	73.4	100.0	58.9	41.1	0.0	0.0	0.7
1996	0.0	11.9	19.0	81.0	100.0	100.0	0.0	0.0	0.0	1.4
1997	0.0	16.3	12.5	87.5	100.0	100.0	0.0	0.0	0.0	1.2
1998	0.0	9.6	11.4	88.6	100.0	100.0	0.0	0.0	0.0	0.6
1999	0.0	18.1	9.4	90.6	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	17.7	10.3	89.7	100.0	100.0	0.0	0.0	0.0	7.3
2001	0.0	21.5	9.3	90.7	100.0	100.0	0.0	0.0	0.0	7.6
2002	0.0	27.1	8.7	91.3	100.0	100.0	0.0	0.0	0.0	15.4
2003	0.0	34.1	10.7	89.3	100.0	100.0	0.0	0.0	0.0	13.4
2004	0.0	35.5	15.1	84.9	100.0	100.0	0.0	0.0	0.0	11.9



# Appendix H

Table H-44 Characteristics of 1975 to 2004 5000. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	122	0.012	11.0	9.0	9.7	9.3	5000	371	165	14.1	114	0.443	0.0328	23.4
1976	188	0.015	11.7	9.6	10.3	9.9	5000	367	159	14.5	112	0.430	0.0316	24.9
1977	172	0.012	12.9	10.6	11.4	11.0	5000	378	167	14.0	115	0.440	0.0331	27.5
1978	198	0.014	12.8	10.5	11.3	10.8	5000	370	170	13.5	116	0.461	0.0339	27.2
1979	404	0.029	12.9	10.8	11.2	11.0	5000	372	157	15.1	112	0.419	0.0315	28.5
1980	147	0.013	15.9	12.7	14.6	13.5	5000	351	153	14.9	111	0.436	0.0304	35.2
1981	53	0.005	16.9	13.5	15.6	14.4	5000	333	141	15.8	107	0.425	0.0279	37.2
1982	97	0.010	18.9	15.0	17.5	16.0	5000	336	140	15.9	107	0.419	0.0276	41.8
1983	69	0.007	18.0	14.1	17.1	15.3	5000	334	150	15.0	110	0.458	0.0297	39.7
1984	85	0.006	17.4	13.6	16.6	14.8	5000	322	155	14.6	111	0.486	0.0308	37.9
1985	92	0.006	16.3	12.7	15.7	13.9	5000	322	162	14.1	113	0.504	0.0321	35.5
1986	93	0.006	16.3	12.7	15.6	13.9	5000	321	162	14.1	113	0.507	0.0322	35.2
1987	74	0.005	16.0	12.7	15.1	13.6	5000	332	183	12.9	119	0.549	0.0363	34.4
1988	164	0.011	16.4	12.8	15.8	14.0	5000	342	193	12.3	122	0.564	0.0384	35.3
1989	129	0.009	16.0	12.6	15.2	13.6	5000	322	187	12.7	120	0.587	0.0369	34.4
1990	223	0.018	16.4	12.7	16.2	14.0	5000	337	198	12.1	124	0.591	0.0394	35.3
1991	138	0.011	16.2	12.5	15.7	13.8	5000	333	198	12.1	123	0.598	0.0392	34.6
1992	235	0.019	16.7	12.8	16.6	14.3	5000	330	189	12.7	121	0.571	0.0375	35.9
1993	258	0.020	16.9	13.0	16.7	14.4	5000	333	199	12.0	124	0.599	0.0396	36.2
1994	414	0.030	17.0	13.0	16.7	14.5	5000	336	202	11.9	125	0.601	0.0403	36.3
1995	453	0.030	16.8	12.9	16.7	14.4	5000	337	202	11.9	125	0.601	0.0404	36.0
1996	390	0.030	17.3	13.2	17.4	14.8	5000	334	225	10.9	131	0.675	0.0450	37.1
1997	573	0.040	18.2	13.9	18.2	15.6	5000	319	229	10.7	132	0.722	0.0458	39.0
1998	525	0.036	17.6	13.4	17.8	15.1	5000	327	236	10.4	134	0.724	0.0472	37.7
1999	629	0.041	18.1	13.9	17.9	15.5	5000	322	245	10.2	137	0.763	0.0490	38.7
2000	707	0.043	18.4	14.3	17.9	15.7	5000	317	252	9.9	139	0.797	0.0504	39.3
2001	927	0.059	18.6	14.3	18.3	15.8	5000	314	255	9.8	140	0.813	0.0509	39.8
2002	780	0.048	18.7	14.4	18.2	15.9	5000	305	260	9.7	141	0.854	0.0521	39.9
2003	886	0.057	18.9	14.6	18.4	16.1	5000	304	265	9.6	143	0.871	0.0530	40.5
2004	683	0.041	19.3	14.9	18.8	16.5	5000	311	269	9.5	144	0.863	0.0538	41.3

Percent of 5000. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1975	0.0	26.4	27.9	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1976	0.0	26.9	28.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1977	0.0	23.5	24.6	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1978	0.0	36.6	32.8	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1979	0.0	8.3	18.5	0.0	0.0	0.0	0.0	87.0	13.0 0.0
1980	0.0	53.2	21.5	65.3	0.0	0.0	0.0	71.2	28.8 0.0
1981	0.0	55.4	31.1	57.2	0.0	0.0	0.0	67.1	32.9 0.0
1982	0.0	43.4	26.2	65.1	0.0	0.0	0.0	44.0	56.0 0.0
1983	0.0	65.2	23.9	66.1	0.0	0.0	0.0	73.6	26.4 0.0
1984	0.0	74.8	26.8	68.4	0.0	0.0	0.0	85.3	14.7 0.0
1985	0.0	85.9	28.0	61.2	0.0	0.0	0.0	93.2	6.8 0.0
1986	0.0	89.6	22.2	64.0	4.2	4.2	0.0	92.0	3.8 0.0
1987	0.0	95.4	31.5	47.0	79.2	20.5	58.7	18.9	2.0 0.0
1988	0.0	74.8	17.8	61.4	96.6	25.5	71.2	1.3	2.1 0.0
1989	0.0	78.9	27.4	56.9	98.6	43.5	55.1	0.0	1.4 0.0
1990	0.0	65.5	13.4	82.7	99.2	23.9	75.3	0.0	0.8 0.0
1991	0.0	86.9	17.5	78.2	99.1	31.2	67.9	0.0	0.9 0.0
1992	0.0	78.2	14.7	85.1	99.6	43.8	55.8	0.0	0.4 0.0
1993	0.0	86.6	13.7	86.3	100.0	38.8	61.2	0.0	0.0 0.0
1994	0.0	87.0	10.0	90.0	100.0	45.0	55.0	0.0	0.0 0.0
1995	0.0	83.9	11.0	89.0	100.0	52.3	47.7	0.0	0.0 0.0
1996	0.0	70.7	7.9	92.1	99.8	99.8	0.0	0.0	0.2 0.0
1997	0.0	60.1	5.7	94.3	100.0	100.0	0.0	0.0	0.0 0.0
1998	0.0	75.4	5.1	94.9	100.0	100.0	0.0	0.0	0.0 0.0
1999	0.0	73.5	2.6	97.4	100.0	100.0	0.0	0.0	0.0 0.0
2000	0.0	78.9	1.6	98.4	100.0	100.0	0.0	0.0	0.0 8.9
2001	0.0	46.9	1.7	98.3	100.0	100.0	0.0	0.0	0.0 4.0
2002	0.0	51.3	2.0	98.0	100.0	100.0	0.0	0.0	0.0 5.5
2003	0.0	47.7	2.1	97.9	100.0	100.0	0.0	0.0	0.0 4.6
2004	0.0	27.3	0.5	99.5	100.0	100.0	0.0	0.0	0.0 11.5

# Appendix H

Table H-45 Characteristics of 1975 to 2004 5500. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	53	0.005	10.0	8.3	8.7	8.5	5500	374	170	14.9	113	0.452	0.0308	23.4
1976	102	0.008	11.4	9.3	10.2	9.7	5500	383	171	14.9	113	0.443	0.0310	26.8
1977	91	0.006	11.8	9.7	10.4	10.0	5500	396	183	14.1	116	0.458	0.0331	27.8
1978	120	0.008	12.1	10.0	10.8	10.3	5500	377	172	14.6	113	0.456	0.0311	28.4
1979	83	0.006	11.3	9.5	9.8	9.6	5500	400	191	13.8	118	0.472	0.0347	26.8
1980	14	0.001	13.3	10.7	12.2	11.3	5500	353	165	14.9	111	0.466	0.0294	31.3
1981	2	0.000	13.3	10.5	12.4	11.3	5500	351	143	16.5	105	0.407	0.0252	31.1
1982	17	0.002	22.4	17.5	21.3	19.1	5500	350	130	18.1	102	0.371	0.0233	52.4
1983	10	0.001	22.1	17.3	21.2	18.9	5500	379	130	18.1	102	0.343	0.0228	51.9
1984	8	0.001	21.9	17.3	20.5	18.6	5500	379	130	18.1	102	0.342	0.0228	51.2
1985	5	0.000	21.1	16.5	20.2	18.0	5500	379	130	18.1	102	0.341	0.0224	49.5
1986	3	0.000	21.1	16.5	20.1	18.0	5500	379	130	18.1	102	0.341	0.0214	49.4
1987	1	0.000	21.1	16.4	20.3	18.0	5500	379	130	18.1	102	0.340	0.0195	49.5
1988	1	0.000	16.9	13.6	15.4	14.4	5500	363	178	14.4	115	0.490	0.0295	41.1
1989	1	0.000	19.2	15.1	18.2	16.3	5500	370	153	16.6	108	0.412	0.0254	45.9
1990	1	0.000	18.6	14.6	17.5	15.8	5500	370	159	15.8	110	0.429	0.0247	44.8
1991	3	0.000	17.5	13.6	17.1	14.9	5500	364	176	14.6	114	0.485	0.0293	42.4
1992	9	0.001	16.3	12.6	16.0	13.9	5500	353	200	12.9	121	0.568	0.0349	38.8
1993	8	0.001	17.0	13.1	16.8	14.5	5500	352	199	13.0	120	0.567	0.0346	40.3
1994	21	0.001	16.9	13.1	16.4	14.4	5500	364	205	12.6	122	0.567	0.0368	40.0
1995	29	0.002	15.9	12.2	15.7	13.5	5500	358	215	12.2	125	0.605	0.0387	37.5
1996	64	0.005	15.3	11.6	15.6	13.1	5500	345	225	11.7	127	0.655	0.0408	36.2
1997	275	0.019	17.0	12.9	17.3	14.5	5500	347	240	11.1	131	0.693	0.0436	40.1
1998	112	0.008	16.4	12.4	16.8	14.1	5500	330	225	11.7	127	0.684	0.0409	38.7
1999	130	0.009	16.3	12.3	16.6	13.9	5500	344	242	11.1	132	0.704	0.0440	38.3
2000	72	0.004	16.2	12.2	16.8	13.9	5500	347	244	11.0	132	0.705	0.0444	38.2
2001	258	0.017	16.3	12.4	16.4	13.9	5500	340	251	10.7	134	0.740	0.0456	38.5
2002	280	0.017	17.0	13.0	17.0	14.5	5500	322	255	10.6	135	0.795	0.0464	40.1
2003	237	0.015	17.4	13.4	17.2	14.9	5500	322	280	10.0	142	0.868	0.0509	41.0
2004	576	0.035	18.8	14.4	18.6	16.0	5500	320	285	9.8	143	0.888	0.0518	44.2

Percent of 5500. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	84.9	1.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	87.1	2.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	76.0	1.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	91.0	0.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	3.9	40.8	0.0	0.0	0.0	0.0	99.9	0.1	0.0
1980	0.0	84.0	44.1	40.9	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	44.3	62.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	100.0	16.7	83.3	0.0	0.0	0.0	0.0	100.0	0.0
1983	0.0	100.0	10.0	90.0	0.0	0.0	0.0	0.0	100.0	0.0
1984	0.0	97.0	13.1	86.9	0.0	0.0	0.0	0.0	100.0	0.0
1985	0.0	83.2	11.9	88.1	0.0	0.0	0.0	0.0	100.0	0.0
1986	0.0	84.4	14.5	85.5	0.0	0.0	0.0	0.0	100.0	0.0
1987	0.0	80.0	7.7	92.3	0.0	0.0	0.0	0.0	100.0	0.0
1988	0.0	97.8	62.7	37.3	54.9	0.0	54.9	0.0	45.1	0.0
1989	0.0	100.0	36.0	64.0	31.7	0.0	31.7	0.0	68.3	0.0
1990	0.0	94.8	41.0	59.0	32.0	0.0	32.0	0.0	68.0	0.0
1991	0.0	97.5	8.7	91.3	52.2	0.0	52.2	0.0	47.8	0.0
1992	0.0	99.6	30.4	69.2	87.2	0.7	86.5	0.0	12.8	0.0
1993	0.0	99.9	13.3	86.7	100.0	16.0	84.0	0.0	0.0	0.0
1994	0.0	95.5	14.9	85.1	100.0	47.8	52.2	0.0	0.0	0.0
1995	0.0	96.8	9.4	90.6	100.0	79.9	20.1	0.0	0.0	0.0
1996	0.0	99.1	4.7	95.3	96.2	96.2	0.0	0.0	3.8	0.0
1997	0.0	99.7	0.7	99.3	99.8	99.8	0.0	0.0	0.2	0.0
1998	0.0	94.7	3.9	96.1	99.7	99.7	0.0	0.0	0.3	0.0
1999	0.0	92.7	3.5	96.5	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	85.8	2.2	97.8	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	97.7	1.8	98.2	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	73.6	1.1	98.9	100.0	100.0	0.0	0.0	0.0	0.0
2003	0.0	63.7	0.7	99.3	100.0	100.0	0.0	0.0	0.0	0.0
2004	0.0	37.8	0.2	99.8	100.0	100.0	0.0	0.0	0.0	14.2

# Appendix H

Table H-46 Characteristics of 1975 to 2004 6000. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1978	0	0.000	12.6	10.4	11.1	10.7	6000	325	153	16.8	106	0.448	0.0149	32.3
1979	7	0.001	10.9	9.0	9.7	9.3	6000	390	153	17.9	106	0.386	0.0249	27.9
1980	0	0.000	9.9	8.1	8.8	8.4	6000	350	155	16.9	106	0.439	0.0231	25.2
1985	0	0.000	19.6	16.0	17.5	16.6	6000	379	130	18.8	100	0.341	0.0168	49.8
1988	0	0.000	19.6	16.4	16.8	16.6	6000	379	140	17.8	103	0.324	0.0000	49.8
1989	0	0.000	21.2	17.6	18.3	17.9	6000	379	126	19.3	99	0.250	0.0000	53.7
1990	0	0.000	20.5	16.8	18.1	17.4	6000	379	135	18.3	101	0.300	0.0000	52.1
1991	0	0.000	19.5	16.1	17.1	16.5	6000	379	140	17.8	103	0.267	0.0000	49.6
1994	3	0.000	18.1	14.2	17.2	15.4	6000	395	179	15.0	112	0.453	0.0286	46.4
1995	3	0.000	18.1	14.1	17.5	15.5	6000	395	180	15.0	112	0.453	0.0290	46.4
1996	0	0.000	18.7	14.5	18.1	15.9	6000	395	180	15.0	113	0.455	0.0242	47.8
1997	1	0.000	18.7	14.6	18.0	15.9	6000	395	180	15.0	113	0.455	0.0298	47.8
1998	46	0.003	15.6	11.6	16.3	13.3	6000	359	233	12.2	126	0.651	0.0389	40.0
1999	200	0.013	16.8	12.8	16.9	14.4	6000	350	254	11.4	131	0.727	0.0424	43.1
2000	2	0.000	15.8	11.6	16.8	13.5	6000	352	242	11.8	128	0.687	0.0398	40.5
2001	6	0.000	15.8	11.7	16.7	13.6	6000	343	239	11.9	127	0.698	0.0396	40.7
2002	146	0.009	17.5	13.4	17.4	14.9	6000	329	283	10.5	138	0.861	0.0472	45.0
2003	63	0.004	17.2	13.2	17.0	14.7	6000	326	284	10.4	139	0.872	0.0473	44.0
2004	356	0.021	18.3	14.0	18.2	15.6	6000	327	293	10.2	141	0.895	0.0489	46.9

Percent of 6000. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1978	0.0	3.7	77.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	62.2	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1988	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1989	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1990	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1991	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1994	0.0	100.0	1.0	99.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	100.0	0.5	99.5	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
1997	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0
1998	0.0	100.0	0.5	99.5	98.4	98.4	0.0	0.0	1.6	0.0
1999	0.0	100.0	0.1	99.9	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	100.0	3.0	97.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	100.0	17.0	83.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	71.3	0.1	99.9	100.0	100.0	0.0	0.0	0.0	2.3
2003	0.0	98.6	0.5	99.5	100.0	100.0	0.0	0.0	0.0	0.0
2004	0.0	91.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.6

# Appendix H

Table H-47 Characteristics of 1975 to 2004 6500. lb. Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1978	0	0.000	11.8	9.7	10.4	10.0	6500	322	153	18.3	104	0.465	0.0188	32.6
1980	1	0.000	12.0	9.5	11.3	10.3	6500	368	150	18.5	103	0.407	0.0213	33.3

Percent of 6500. lb. Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING					FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE	
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	

# Appendix I

Table I-1

Characteristics of 1975 to 2004 Front Drive Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	539	0.053	23.4	18.1	22.9	20.0	2790		147	88	14.8	103	0.704	0.0303	27.6		
1976	561	0.046	24.0	18.9	22.9	20.5	2844		163	95	14.3	105	0.680	0.0318	28.8		
1977	774	0.055	26.2	20.3	25.5	22.3	2706	93.8	142	88	14.4	104	0.692	0.0314	30.6	2264	2876
1978	1075	0.074	26.8	20.9	25.7	22.8	2590	94.4	129	82	14.5	103	0.693	0.0310	30.1	2308	2838
1979	1283	0.092	26.4	20.7	25.1	22.5	2634	94.6	137	84	14.5	104	0.674	0.0312	29.8	2211	2835
1980	2804	0.248	26.9	20.8	26.3	23.0	2645	100.4	138	86	14.4	105	0.652	0.0320	30.7	2363	3087
1981	3235	0.307	28.6	22.2	27.7	24.4	2646	103.0	133	85	14.2	105	0.672	0.0321	32.6	2566	3349
1982	3568	0.367	30.2	23.2	29.7	25.7	2665	101.7	127	83	14.6	104	0.676	0.0309	34.5	2658	3512
1983	3784	0.367	30.3	23.5	29.5	25.9	2682	104.2	129	85	14.4	104	0.681	0.0316	35.0	2751	3641
1984	5737	0.409	29.7	23.0	29.0	25.3	2752	105.4	133	90	14.1	106	0.694	0.0325	35.2	2725	3709
1985	6648	0.460	29.4	22.6	28.9	25.1	2825	106.6	142	97	13.5	108	0.712	0.0343	35.7	2724	3803
1986	7831	0.510	29.9	23.0	29.5	25.5	2844	107.0	140	100	13.5	109	0.730	0.0347	36.5	2769	3909
1987	8267	0.556	29.7	22.8	29.4	25.4	2868	106.2	140	103	13.3	110	0.752	0.0353	36.6	2724	3884
1988	8768	0.573	30.0	23.0	29.7	25.6	2911	106.2	142	107	13.0	111	0.775	0.0363	37.4	2751	3973
1989	8267	0.572	29.3	22.3	29.3	25.0	2980	107.0	147	115	12.6	113	0.803	0.0381	37.4	2706	4000
1990	7455	0.591	28.6	21.8	28.9	24.5	3082	106.7	151	123	12.1	116	0.844	0.0397	37.8	2638	4037
1991	7096	0.564	28.9	22.0	29.1	24.7	3046	106.3	149	124	12.1	116	0.859	0.0401	37.8	2662	4018
1992	6551	0.538	28.4	21.4	29.1	24.3	3120	107.2	157	131	11.7	118	0.868	0.0415	38.1	2645	4085
1993	7195	0.545	29.0	21.9	29.5	24.7	3109	107.6	154	130	11.8	118	0.871	0.0414	38.6	2704	4162
1994	7104	0.508	28.9	21.8	29.6	24.7	3143	107.6	153	133	11.7	119	0.895	0.0417	39.0	2700	4199
1995	7701	0.508	29.2	21.9	30.2	25.0	3155	108.6	154	144	11.0	123	0.956	0.0450	39.6	2752	4297
1996	6829	0.520	29.0	21.7	29.9	24.8	3200	108.7	153	147	10.9	123	0.974	0.0454	39.7	2723	4320
1997	7221	0.499	29.1	21.8	30.1	24.9	3196	108.3	153	149	10.9	124	0.985	0.0458	39.9	2725	4325
1998	6935	0.480	29.2	21.8	30.2	24.9	3243	108.9	154	151	10.8	125	0.998	0.0462	40.6	2743	4420
1999	7305	0.480	28.7	21.5	29.8	24.6	3307	109.2	157	156	10.7	126	1.009	0.0467	40.7	2708	4455
2000	7752	0.468	28.8	21.6	29.7	24.6	3313	103.6	156	158	10.6	126	1.030	0.0473	40.9	2586	4246
2001	7073	0.453	29.2	22.0	30.1	25.0	3312	110.2	155	158	10.6	127	1.034	0.0473	41.6	2787	4584
2002	7050	0.438	29.5	22.2	30.1	25.2	3319	110.9	157	163	10.4	128	1.056	0.0486	42.0	2822	4657
2003	6308	0.404	30.2	22.7	30.9	25.8	3326	110.1	160	165	10.3	129	1.076	0.0491	43.2	2869	4750
2004	6876	0.414	30.1	22.6	31.0	25.7	3351	111.4	158	169	10.2	130	1.085	0.0498	43.4	2905	4838

Percent of Front Drive Cars:

MODEL YEAR	TRANSMISSION		FUEL METERING					FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL		SMALL	MID	LARGE
1975	66.8	0.0	17.6	17.6	0.0	82.4	0.0	0.0	87.4	8.3	4.3
1976	59.7	0.0	18.9	18.9	0.0	81.1	0.0	0.0	86.9	8.8	4.4
1977	68.2	0.0	31.3	31.3	0.0	65.9	2.8	0.0	89.5	6.1	4.4
1978	70.4	0.0	31.0	31.0	0.0	65.3	3.6	0.0	93.6	4.2	2.2
1979	67.4	0.0	19.6	19.6	0.0	74.7	5.6	0.0	87.0	13.0	0.0
1980	48.8	1.0	11.0	9.5	1.6	82.2	6.8	0.0	67.8	32.2	0.0
1981	46.7	0.0	7.3	5.4	1.8	87.3	5.4	0.0	68.1	31.9	0.0
1982	41.0	32.2	18.9	5.0	13.9	78.4	2.7	0.0	71.0	29.0	0.0
1983	37.4	38.9	30.9	5.8	25.1	67.8	1.3	0.0	68.3	31.7	0.0
1984	30.3	42.4	36.5	8.6	27.9	61.9	1.6	0.0	69.0	31.0	0.0
1985	26.3	48.6	54.5	21.0	33.5	44.8	0.7	0.0	63.3	29.4	7.2
1986	27.1	52.4	67.3	33.1	34.2	32.4	0.3	1.3	62.5	28.5	9.1
1987	26.2	56.5	74.8	38.0	36.7	25.2	0.0	6.1	66.3	24.7	9.0
1988	25.5	64.6	83.7	48.5	35.1	16.3	0.0	12.0	67.5	23.8	8.7
1989	21.7	68.6	89.4	58.0	31.4	10.6	0.0	14.0	61.0	29.3	9.7
1990	19.7	73.1	98.8	75.2	23.6	1.2	0.0	26.7	61.1	28.8	10.1
1991	21.0	73.7	99.9	77.5	22.3	0.0	0.1	28.5	64.1	27.3	8.5
1992	18.5	75.4	100.0	90.3	9.7	0.0	0.0	28.8	61.6	27.3	11.1
1993	18.7	76.3	100.0	91.9	8.1	0.0	0.0	33.8	60.4	29.7	9.9
1994	17.4	78.8	100.0	93.9	6.1	0.0	0.0	41.6	61.3	26.3	12.4
1995	16.8	82.4	100.0	98.6	1.4	0.0	0.0	53.6	60.4	27.5	12.1
1996	14.6	84.4	99.9	98.7	1.3	0.0	0.1	59.8	56.2	33.3	10.6
1997	13.1	86.1	100.0	99.0	0.9	0.0	0.0	59.4	56.9	31.1	12.0
1998	11.5	88.1	99.8	99.7	0.2	0.0	0.2	63.0	48.8	41.5	9.8
1999	10.0	89.4	99.9	99.8	0.1	0.0	0.1	62.3	47.4	42.0	10.5
2000	9.7	89.3	99.7	99.7	0.0	0.0	0.3	65.8	46.5	36.1	17.4
2001	9.9	88.8	99.7	99.7	0.0	0.0	0.3	65.2	50.1	34.0	15.9
2002	9.8	89.4	99.5	99.5	0.0	0.0	0.5	67.0	45.7	38.9	15.4
2003	9.5	89.4	99.5	99.5	0.0	0.0	0.5	72.1	47.6	38.8	13.5
2004	11.4	85.7	99.7	99.7	0.0	0.0	0.3	72.8	46.5	35.8	17.7

# Appendix I

Table I-2

Characteristics of 1975 to 2004 Rear Drive Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	7698	0.753	15.4	12.0	14.8	13.2	4146		298	139	14.1	112	0.502	0.0333	27.5		
1976	9161	0.743	17.2	13.5	16.3	14.6	4133		294	136	14.4	111	0.491	0.0324	30.3		
1977	10526	0.745	17.9	14.1	17.0	15.3	4034	111.6	289	136	13.9	112	0.503	0.0336	31.0	1744	3464
1978	10100	0.699	19.4	15.1	18.6	16.5	3694	110.6	264	129	13.6	112	0.522	0.0345	30.6	1865	3399
1979	9474	0.682	19.6	15.4	18.6	16.7	3604	110.8	253	124	13.7	111	0.527	0.0342	30.2	1882	3366
1980	6553	0.580	22.3	17.4	21.4	19.0	3296	105.9	209	107	14.2	108	0.554	0.0323	31.5	2043	3359
1981	5436	0.515	23.5	18.3	22.6	20.0	3333	108.6	211	107	14.4	107	0.548	0.0319	33.5	2203	3670
1982	4188	0.430	23.3	18.0	22.8	19.9	3384	109.9	216	112	14.1	109	0.553	0.0329	33.9	2217	3762
1983	3973	0.386	22.5	17.2	22.4	19.2	3547	113.6	236	123	13.6	111	0.549	0.0346	34.3	2200	3916
1984	4830	0.345	23.1	17.6	23.1	19.7	3514	110.1	234	125	13.3	113	0.569	0.0355	34.9	2190	3857
1985	3918	0.271	23.5	17.9	23.6	20.1	3576	110.6	240	135	12.7	116	0.600	0.0377	36.0	2226	4010
1986	3068	0.200	23.8	18.1	24.1	20.4	3547	107.7	239	139	12.3	117	0.625	0.0392	36.2	2197	3931
1987	2347	0.158	23.5	17.7	24.1	20.1	3608	107.7	241	147	12.0	120	0.660	0.0409	36.4	2176	3960
1988	1879	0.123	23.5	17.7	24.2	20.1	3689	110.8	248	157	11.6	122	0.675	0.0427	37.2	2241	4177
1989	1654	0.114	23.6	17.8	24.3	20.2	3708	111.7	244	153	11.9	121	0.675	0.0414	37.6	2267	4248
1990	1268	0.101	23.6	17.8	24.2	20.2	3724	108.5	235	159	11.7	123	0.732	0.0428	37.7	2192	4141
1991	1310	0.104	24.0	18.0	24.9	20.6	3726	109.3	240	177	10.7	129	0.783	0.0474	38.4	2247	4250
1992	1467	0.121	24.6	18.5	25.3	21.0	3760	113.6	228	179	10.7	129	0.834	0.0474	39.6	2396	4546
1993	1161	0.088	24.3	18.1	25.2	20.8	3814	113.1	243	189	10.5	132	0.817	0.0496	39.6	2352	4534
1994	1274	0.091	24.0	17.9	25.2	20.6	3840	111.2	252	198	10.0	135	0.819	0.0516	39.5	2291	4440
1995	1586	0.105	24.6	18.3	25.8	21.1	3784	109.0	230	194	10.1	134	0.884	0.0509	40.0	2306	4385
1996	943	0.072	24.3	18.0	25.9	20.8	3862	110.0	257	207	9.7	137	0.828	0.0534	40.2	2287	4462
1997	978	0.068	24.3	18.0	25.8	20.8	3827	109.6	244	209	9.5	139	0.882	0.0546	39.9	2279	4401
1998	856	0.059	24.5	18.2	25.7	21.0	3771	104.0	242	218	9.1	142	0.924	0.0576	39.7	2188	4157
1999	888	0.058	24.5	18.2	25.7	20.9	3799	105.7	242	226	8.8	145	0.968	0.0595	39.9	2217	4248
2000	1186	0.072	25.0	18.6	26.0	21.4	3699	103.5	229	228	8.7	146	1.020	0.0609	39.6	2228	4137
2001	1063	0.068	24.8	18.5	25.9	21.2	3717	101.4	228	226	8.7	146	1.031	0.0608	39.6	2168	4057
2002	933	0.058	24.5	18.3	25.5	20.9	3784	98.6	234	237	8.5	149	1.049	0.0627	39.6	2066	3946
2003	1150	0.074	24.3	18.1	25.4	20.8	3917	103.4	231	243	8.6	149	1.084	0.0623	40.7	2150	4273
2004	1295	0.078	24.3	18.1	25.4	20.8	3857	101.3	231	246	8.4	151	1.097	0.0641	40.1	2104	4110

Percent of Rear Drive Cars:

MODEL YEAR	TRANSMISSION		FUEL METERING					FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL		SMALL	MID	LARGE
1975	16.6	0.0	4.3	4.3	0.0	95.5	0.3	0.0	53.2	24.4	22.4
1976	14.5	0.0	2.2	2.2	0.0	97.5	0.3	0.0	53.5	26.2	20.3
1977	13.0	0.0	2.2	2.2	0.0	97.5	0.3	0.0	49.2	25.9	24.9
1978	14.9	7.4	2.3	2.3	0.0	97.1	0.6	0.0	39.5	37.6	23.0
1979	15.9	9.2	2.7	2.7	0.0	95.6	1.6	0.0	37.6	37.2	25.2
1980	24.4	23.4	5.2	4.9	0.3	91.4	3.5	0.0	48.0	35.7	16.2
1981	20.3	53.3	9.8	6.6	3.1	83.9	6.3	0.0	41.0	39.4	19.6
1982	19.5	68.0	15.6	9.2	6.4	78.0	6.4	0.0	43.6	33.1	23.4
1983	14.3	76.4	27.6	13.5	14.1	69.5	2.9	0.0	35.7	33.9	30.4
1984	16.1	77.7	43.6	22.8	20.8	54.6	1.8	0.0	42.7	28.0	29.2
1985	15.1	77.0	54.2	22.9	31.3	44.5	1.3	0.0	40.8	29.2	30.0
1986	17.0	74.4	60.9	46.0	14.9	38.8	0.3	2.5	50.6	27.2	22.1
1987	18.3	73.0	68.8	58.9	9.8	30.2	1.0	4.0	52.0	24.0	24.1
1988	16.1	76.2	84.2	78.8	5.3	15.8	0.0	3.0	51.1	16.2	32.7
1989	14.9	75.9	94.1	83.3	10.7	5.9	0.0	5.4	43.4	23.1	33.5
1990	17.5	73.3	97.3	90.5	6.8	2.6	0.2	17.0	41.1	29.8	29.1
1991	15.8	75.2	99.5	79.5	20.1	0.0	0.5	22.1	44.0	22.4	33.7
1992	10.6	83.0	99.7	85.7	14.0	0.0	0.3	31.8	31.3	31.8	36.9
1993	11.4	81.8	100.0	89.4	10.6	0.0	0.0	25.5	34.4	30.5	35.1
1994	12.6	82.1	100.0	100.0	0.0	0.0	0.0	25.3	42.1	25.8	32.1
1995	12.9	80.5	99.6	99.6	0.0	0.0	0.4	41.9	42.4	33.2	24.3
1996	14.9	79.6	99.7	99.7	0.0	0.0	0.3	26.0	42.2	20.3	37.5
1997	13.9	85.9	99.7	99.7	0.0	0.0	0.3	38.1	43.3	22.9	33.8
1998	15.7	84.0	99.6	99.6	0.0	0.0	0.4	36.4	57.1	15.4	27.5
1999	15.9	83.3	99.5	99.5	0.0	0.0	0.5	32.9	52.1	15.1	32.8
2000	18.3	79.3	100.0	99.6	0.4	0.0	0.0	44.7	56.3	16.9	26.8
2001	16.8	82.8	100.0	100.0	0.0	0.0	0.0	40.7	58.9	13.8	27.3
2002	18.3	81.2	100.0	100.0	0.0	0.0	0.0	46.9	67.1	15.1	17.9
2003	16.2	83.8	99.9	99.9	0.0	0.0	0.1	48.1	56.0	13.5	30.5
2004	19.9	80.1	100.0	100.0	0.0	0.0	0.0	51.9	56.2	19.3	24.5

# Appendix I

Table I-3

Characteristics of 1975 to 2004 Four Wheel Drive Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1979	37	0.003	27.6	21.7	26.1	23.5	2500	100.5	97	67	16.0	98	0.691	0.0268	29.4	2360	2950
1980	85	0.008	20.9	16.7	19.2	17.8	3149	100.8	173	80	16.8	99	0.540	0.0256	28.0	1880	2819
1981	61	0.006	24.3	19.4	22.5	20.7	2929	102.7	157	83	15.4	101	0.576	0.0282	30.3	2224	3117
1982	63	0.007	25.3	20.1	23.4	21.5	3122	103.1	165	85	16.0	101	0.564	0.0270	33.4	2266	3439
1983	245	0.024	31.6	25.3	29.0	26.8	2689	98.9	118	75	15.7	100	0.675	0.0278	36.3	2722	3586
1984	107	0.008	27.6	21.9	25.9	23.5	2913	106.6	135	80	16.0	100	0.642	0.0273	34.4	2605	3672
1985	224	0.016	32.5	25.7	30.5	27.7	2584	108.9	101	71	16.1	99	0.703	0.0274	36.1	3093	3945
1986	116	0.008	26.9	21.2	25.4	22.9	2929	113.2	120	92	14.5	105	0.788	0.0311	33.6	2628	3808
1987	118	0.008	26.8	21.2	25.3	22.8	2928	114.7	115	92	14.5	105	0.811	0.0311	33.5	2653	3851
1988	89	0.006	28.8	22.8	26.8	24.5	2827	109.2	112	98	13.4	109	0.890	0.0344	34.6	2712	3801
1989	96	0.007	28.9	22.8	27.1	24.6	2845	95.3	115	107	12.6	112	0.948	0.0375	35.3	2344	3346
1990	86	0.007	26.8	20.9	25.9	22.9	3234	115.7	125	119	12.8	113	0.959	0.0364	37.0	2665	4291
1991	118	0.009	26.6	20.6	25.9	22.7	3289	109.5	130	145	11.6	121	1.104	0.0431	37.3	2512	4097
1992	90	0.007	25.9	20.0	25.2	22.0	3492	109.1	140	191	9.8	137	1.400	0.0550	38.5	2442	4209
1993	100	0.008	28.0	21.7	27.2	23.9	3216	111.2	127	130	12.1	117	1.008	0.0397	38.3	2667	4283
1994	36	0.003	26.2	20.2	25.6	22.3	3442	117.3	140	140	12.0	118	0.990	0.0399	38.5	2642	4530
1995	109	0.007	27.7	21.3	27.4	23.6	3310	115.4	135	143	11.3	121	1.056	0.0429	39.1	2738	4522
1996	118	0.009	26.7	20.4	26.6	22.8	3397	118.6	145	153	11.0	124	1.045	0.0448	38.8	2728	4627
1997	144	0.010	27.3	20.8	27.3	23.3	3397	119.3	147	160	10.6	126	1.086	0.0470	39.6	2801	4746
1998	179	0.012	26.5	20.2	26.6	22.6	3525	120.8	149	169	10.4	128	1.136	0.0478	39.9	2749	4833
1999	186	0.012	26.2	19.8	26.7	22.4	3558	119.8	149	171	10.3	129	1.151	0.0480	39.9	2702	4794
2000	190	0.011	26.3	20.1	26.2	22.5	3603	119.0	153	181	10.0	132	1.191	0.0501	40.5	2694	4836
2001	273	0.017	25.2	19.2	25.4	21.6	3831	115.2	157	200	9.8	136	1.292	0.0522	41.5	2507	4819
2002	318	0.020	25.8	19.5	26.1	22.0	3827	110.7	155	201	9.7	136	1.320	0.0526	42.3	2463	4711
2003	247	0.016	25.4	19.2	26.0	21.7	3848	102.1	187	209	9.5	138	1.284	0.0541	41.9	2216	4286
2004	429	0.026	24.5	18.6	24.7	20.9	4079	119.1	174	216	9.7	138	1.269	0.0532	42.7	2514	5122

Percent of Four Wheel Drive Cars:

MODEL YEAR	TRANSMISSION		FUEL		METERING		FOUR		VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE	SMALL	MID	LARGE
1979	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1980	53.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1981	73.3	26.7	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1982	67.5	32.5	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1983	55.8	14.5	1.0	1.0	0.0	99.0	0.0	0.0	100.0	0.0	0.0
1984	59.2	35.4	7.8	7.8	0.0	92.2	0.0	0.0	100.0	0.0	0.0
1985	54.0	36.7	9.8	9.8	0.0	90.2	0.0	0.0	93.1	6.9	0.0
1986	72.4	0.0	34.7	34.7	0.0	65.3	0.0	0.0	90.3	9.7	0.0
1987	69.7	0.5	34.5	27.6	6.8	65.5	0.0	0.0	94.9	5.1	0.0
1988	76.8	6.2	79.5	35.2	44.3	20.5	0.0	10.1	95.3	4.7	0.0
1989	60.9	15.4	99.1	78.1	21.0	0.9	0.0	40.7	77.1	22.9	0.0
1990	45.8	45.1	100.0	82.1	17.9	0.0	0.0	65.5	95.0	5.0	0.0
1991	42.4	45.0	100.0	87.5	12.5	0.0	0.0	79.6	97.3	2.7	0.0
1992	49.3	38.0	100.0	100.0	0.0	0.0	0.0	61.9	97.7	2.3	0.0
1993	32.6	63.9	100.0	93.4	6.6	0.0	0.0	45.6	93.8	6.2	0.0
1994	29.2	61.6	100.0	100.0	0.0	0.0	0.0	4.8	98.4	1.6	0.0
1995	30.7	69.3	100.0	100.0	0.0	0.0	0.0	94.2	55.1	44.9	0.0
1996	32.5	67.5	100.0	100.0	0.0	0.0	0.0	84.6	44.4	55.6	0.0
1997	27.9	72.1	100.0	100.0	0.0	0.0	0.0	84.8	45.3	54.7	0.0
1998	24.3	75.7	100.0	100.0	0.0	0.0	0.0	77.8	36.7	63.3	0.0
1999	22.7	77.1	100.0	100.0	0.0	0.0	0.0	70.9	36.7	63.3	0.0
2000	25.4	74.4	100.0	100.0	0.0	0.0	0.0	69.0	32.0	67.6	0.3
2001	27.7	71.9	100.0	100.0	0.0	0.0	0.0	56.7	39.9	59.4	0.7
2002	27.5	72.1	100.0	100.0	0.0	0.0	0.0	72.1	59.5	40.3	0.2
2003	18.1	81.9	100.0	100.0	0.0	0.0	0.0	54.8	69.4	27.8	2.8
2004	17.8	82.2	100.0	100.0	0.0	0.0	0.0	63.4	62.9	25.9	11.2

# Appendix I

Table I-4

Characteristics of 1975 to 2004 Front Drive Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1981	1	0.000	17.9	13.8	17.5	15.2	4115	318	135	13.7	111	0.422	0.0301	31.3
1983	0	0.000	39.0	33.5	32.3	32.9	2250	97	52	18.3	93	0.532	0.0200	37.2
1984	151	0.011	24.7	19.6	23.1	21.0	3340	143	97	15.3	104	0.680	0.0291	35.3
1985	260	0.018	23.7	18.9	21.9	20.1	3422	148	100	15.2	104	0.681	0.0294	34.5
1986	255	0.017	24.4	19.4	22.9	20.8	3442	150	100	15.4	104	0.669	0.0290	35.8
1987	307	0.021	24.6	19.3	23.3	20.9	3503	163	122	13.6	111	0.741	0.0346	36.6
1988	411	0.027	24.1	18.6	23.4	20.5	3714	173	133	13.2	114	0.765	0.0358	38.1
1989	439	0.030	24.1	18.8	23.1	20.5	3724	168	131	13.5	113	0.776	0.0350	38.2
1990	590	0.047	23.9	18.4	23.4	20.4	3828	184	135	13.3	113	0.733	0.0353	39.0
1991	395	0.031	23.8	18.5	23.0	20.3	3919	186	136	13.5	113	0.727	0.0345	39.7
1992	554	0.046	23.8	18.3	23.4	20.3	3894	187	138	13.2	114	0.742	0.0355	39.5
1993	718	0.054	23.8	18.2	23.6	20.3	3838	188	143	12.7	116	0.763	0.0373	38.9
1994	741	0.053	23.5	18.0	23.3	20.1	3902	193	145	12.7	116	0.755	0.0372	39.2
1995	1019	0.067	23.5	17.8	23.8	20.1	3889	206	146	12.6	117	0.722	0.0375	39.1
1996	1040	0.079	23.5	17.8	23.7	20.1	4061	202	166	11.8	122	0.824	0.0409	40.7
1997	819	0.057	23.5	17.8	23.8	20.1	4048	195	161	12.0	120	0.832	0.0399	40.7
1998	1166	0.081	23.8	18.0	24.3	20.4	4025	201	173	11.3	124	0.864	0.0430	41.0
1999	1114	0.073	23.5	17.7	24.2	20.1	4147	204	175	11.4	124	0.863	0.0423	41.8
2000	1363	0.082	23.8	17.9	24.4	20.4	4168	202	178	11.4	124	0.888	0.0426	42.4
2001	1033	0.066	24.1	18.2	24.6	20.6	4279	206	191	10.9	128	0.932	0.0447	44.1
2002	1048	0.065	24.0	18.1	24.5	20.5	4318	207	197	10.8	129	0.959	0.0458	44.4
2003	977	0.063	24.6	18.5	25.2	21.0	4269	210	200	10.5	131	0.958	0.0469	44.9
2004	985	0.059	24.2	18.1	25.1	20.7	4401	213	210	10.4	132	0.989	0.0477	45.5

Percent of Front Drive Vans:

MODEL YEAR	TRANSMISSION		FUEL FI	METERING				FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK		PORT	TBI	CARB	DSL		SMALL	MID	LARGE
1981	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0
1983	33.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0
1984	25.1	5.6	0.0	0.0	0.0	98.7	1.3	0.0	11.0	89.0	0.0
1985	12.4	4.4	0.1	0.1	0.0	99.9	0.0	0.0	6.7	93.3	0.0
1986	8.7	6.1	0.1	0.0	0.1	99.9	0.0	0.0	9.0	91.0	0.0
1987	5.5	54.1	51.8	51.6	0.2	48.2	0.0	0.0	8.4	91.6	0.0
1988	3.0	78.4	100.0	79.2	20.8	0.0	0.0	0.0	2.9	97.1	0.0
1989	2.6	58.8	100.0	72.7	27.3	0.0	0.0	0.0	2.2	97.8	0.0
1990	1.9	96.7	100.0	67.9	32.1	0.0	0.0	0.0	2.9	97.1	0.0
1991	0.2	99.8	100.0	70.5	29.5	0.0	0.0	0.0	1.6	98.4	0.0
1992	2.4	97.6	100.0	82.0	18.0	0.0	0.0	0.0	6.1	93.9	0.0
1993	1.6	98.4	100.0	88.8	11.2	0.0	0.0	1.2	1.7	98.3	0.0
1994	0.6	99.4	100.0	90.8	9.2	0.0	0.0	0.3	1.0	99.0	0.0
1995	0.1	99.9	100.0	93.2	6.8	0.0	0.0	3.3	0.2	99.7	0.2
1996	0.0	100.0	100.0	100.0	0.0	0.0	0.0	5.6	0.1	99.9	0.0
1997	0.0	100.0	100.0	100.0	0.0	0.0	0.0	7.5	0.0	99.8	0.2
1998	0.0	100.0	100.0	100.0	0.0	0.0	0.0	12.0	0.0	100.0	0.0
1999	0.0	100.0	100.0	100.0	0.0	0.0	0.0	16.4	0.0	99.9	0.1
2000	0.0	100.0	100.0	100.0	0.0	0.0	0.0	26.8	0.0	99.9	0.1
2001	0.0	100.0	100.0	100.0	0.0	0.0	0.0	26.9	0.0	100.0	0.0
2002	0.0	100.0	100.0	100.0	0.0	0.0	0.0	33.7	0.0	99.9	0.1
2003	0.0	100.0	100.0	100.0	0.0	0.0	0.0	27.0	0.0	99.7	0.3
2004	0.0	100.0	100.0	100.0	0.0	0.0	0.0	50.9	0.0	100.0	0.0



# Appendix I

Table I-5

Characteristics of 1975 to 2004 Rear Drive Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	457	0.045	13.1	10.6	11.9	11.1	4196	317	143	13.9	113	0.448	0.0339	23.8
1976	502	0.041	13.9	11.1	12.8	11.8	4200	324	146	13.7	114	0.447	0.0345	25.2
1977	514	0.036	14.7	11.9	13.3	12.5	4252	332	152	13.3	116	0.458	0.0357	26.9
1978	625	0.043	14.2	11.6	12.7	12.1	4249	329	149	13.4	115	0.453	0.0350	26.1
1979	480	0.035	13.5	11.1	12.1	11.5	4541	322	144	14.6	111	0.451	0.0316	26.5
1980	242	0.021	16.6	13.3	15.4	14.1	4353	288	130	15.2	108	0.459	0.0295	31.0
1981	244	0.023	17.5	14.0	16.0	14.8	4325	284	129	15.3	108	0.458	0.0294	32.3
1982	310	0.032	17.3	13.9	15.9	14.7	4342	287	132	15.2	109	0.463	0.0301	32.3
1983	382	0.037	17.7	14.1	16.5	15.1	4418	295	136	15.0	109	0.465	0.0305	33.7
1984	525	0.037	17.7	14.0	16.6	15.1	4286	280	134	14.8	110	0.497	0.0309	32.9
1985	593	0.041	18.0	14.3	16.8	15.3	4222	275	142	14.0	112	0.533	0.0333	32.9
1986	776	0.051	19.5	15.4	18.5	16.6	4198	255	137	14.2	111	0.559	0.0325	35.2
1987	786	0.053	19.6	15.3	18.8	16.7	4169	253	151	13.1	116	0.622	0.0361	35.1
1988	713	0.047	19.8	15.3	19.2	16.8	4256	262	155	12.9	117	0.615	0.0365	36.0
1989	829	0.057	19.8	15.3	19.3	16.9	4239	257	155	13.0	117	0.627	0.0365	36.1
1990	589	0.047	19.3	14.9	18.9	16.4	4369	270	162	12.8	118	0.619	0.0371	36.2
1991	526	0.042	20.1	15.4	19.8	17.1	4305	249	157	12.9	117	0.664	0.0365	37.1
1992	600	0.049	19.8	15.3	19.5	16.9	4360	256	163	12.7	118	0.664	0.0374	37.1
1993	658	0.050	20.2	15.5	20.1	17.3	4350	249	166	12.5	119	0.692	0.0382	37.7
1994	563	0.040	19.5	15.0	19.2	16.6	4448	269	176	12.2	121	0.666	0.0395	37.2
1995	492	0.033	19.0	14.6	18.7	16.2	4535	289	186	11.7	124	0.660	0.0413	36.9
1996	336	0.026	19.2	14.7	19.0	16.4	4560	273	185	11.9	123	0.691	0.0406	37.5
1997	387	0.027	19.8	15.1	19.6	16.9	4579	269	200	11.2	128	0.748	0.0436	38.7
1998	274	0.019	19.5	14.9	19.4	16.6	4759	280	209	11.1	129	0.750	0.0440	39.6
1999	312	0.020	18.9	14.5	18.8	16.1	4822	285	208	11.3	128	0.731	0.0430	38.9
2000	282	0.017	19.1	14.7	18.8	16.3	4718	283	208	11.1	129	0.734	0.0440	38.5
2001	173	0.011	19.0	14.7	18.7	16.2	4813	283	212	11.1	129	0.750	0.0439	39.2
2002	157	0.010	18.7	14.4	18.3	15.9	4807	284	213	11.0	130	0.751	0.0443	38.4
2003	147	0.009	19.1	14.5	19.3	16.3	5027	287	218	11.3	129	0.757	0.0432	41.1
2004	121	0.007	19.6	15.1	19.3	16.7	5040	287	227	10.9	131	0.783	0.0448	42.1

Percent of Rear Drive Vans:

MODEL YEAR	TRANSMISSION		FUEL METERING					FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL		SMALL	MID	LARGE
1975	23.3	0.0	0.2	0.0	0.0	99.8	0.0	0.0	0.4	66.1	33.6
1976	20.5	0.0	0.3	0.0	0.0	99.7	0.0	0.0	0.3	61.4	38.3
1977	14.3	0.0	0.4	0.0	0.0	99.6	0.0	0.0	0.4	61.0	38.6
1978	13.0	0.0	0.4	0.0	0.0	99.6	0.0	0.0	0.4	63.8	35.8
1979	14.8	6.8	1.8	0.0	0.0	98.2	0.0	0.0	1.8	65.1	33.1
1980	26.0	39.0	6.5	0.0	0.0	93.5	0.0	0.0	6.5	53.8	39.7
1981	21.7	46.8	4.6	0.0	0.0	95.4	0.0	0.0	4.6	56.1	39.3
1982	15.7	45.8	3.0	0.0	0.0	95.2	1.8	0.0	4.8	58.0	37.2
1983	12.0	59.4	3.5	0.0	0.0	92.2	4.4	0.0	3.6	60.2	36.2
1984	12.7	57.1	12.6	0.0	0.0	86.2	1.2	0.0	12.6	54.3	33.1
1985	8.4	66.5	13.3	0.0	0.0	86.2	0.4	0.0	12.3	60.3	27.4
1986	6.9	78.8	51.2	29.4	21.9	48.3	0.5	0.0	8.5	70.9	20.6
1987	5.1	74.1	85.7	43.0	42.8	14.2	0.1	0.0	10.0	72.2	17.8
1988	3.1	79.6	99.5	43.5	56.0	0.4	0.2	0.0	4.9	75.9	19.2
1989	2.5	86.3	99.9	49.9	50.0	0.0	0.1	0.0	2.2	80.7	17.1
1990	1.0	90.4	99.9	44.4	55.4	0.0	0.1	0.0	1.1	80.6	18.2
1991	1.5	94.3	99.9	53.1	46.7	0.0	0.1	0.0	0.8	84.8	14.4
1992	0.7	95.2	99.9	60.3	39.6	0.0	0.1	0.0	0.0	84.5	15.5
1993	0.8	95.6	100.0	66.3	33.7	0.0	0.0	0.0	0.0	83.8	16.2
1994	0.3	94.4	100.0	65.2	34.8	0.0	0.0	2.5	0.0	80.1	19.9
1995	0.0	94.4	100.0	71.6	28.4	0.0	0.0	3.3	0.0	79.2	20.8
1996	0.0	93.2	100.0	100.0	0.0	0.0	0.0	2.1	0.0	67.4	32.6
1997	0.0	98.6	100.0	100.0	0.0	0.0	0.0	0.9	0.0	64.4	35.6
1998	0.0	100.0	100.0	100.0	0.0	0.0	0.0	2.3	0.0	51.8	48.2
1999	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	45.4	54.6
2000	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	40.5	59.5
2001	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	31.1	68.9
2002	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	29.3	70.7
2003	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	28.1	71.9
2004	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	31.9	68.1

# Appendix I

Table I-6

Characteristics of 1975 to 2004 Four Wheel Drive Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1985	3	0.000	25.0	19.2	24.8	21.4	3000	122	88	14.9	103	0.720	0.0284	32.0
1986	13	0.001	25.1	19.3	24.9	21.4	3000	122	88	14.9	103	0.721	0.0292	32.1
1987	21	0.001	24.2	19.3	22.6	20.6	3459	128	94	15.8	102	0.739	0.0272	35.8
1988	9	0.001	26.2	20.3	25.4	22.3	3378	125	97	15.2	104	0.777	0.0282	37.6
1989	9	0.001	23.4	18.3	22.3	19.9	3567	135	106	15.1	105	0.780	0.0292	35.6
1990	83	0.007	20.1	15.6	19.5	17.1	4050	202	151	12.7	117	0.765	0.0374	34.7
1991	113	0.009	20.6	15.9	20.0	17.6	4076	200	152	12.6	117	0.778	0.0373	35.8
1992	67	0.006	20.3	15.7	19.8	17.3	4409	212	161	12.9	117	0.773	0.0362	38.1
1993	65	0.005	20.3	15.6	20.1	17.3	4571	229	174	12.5	120	0.765	0.0379	39.6
1994	91	0.007	20.7	15.8	20.5	17.6	4408	219	169	12.4	120	0.780	0.0382	38.8
1995	150	0.010	21.7	16.6	21.7	18.6	4209	208	159	12.5	118	0.775	0.0377	39.0
1996	33	0.003	20.0	15.3	19.8	17.1	4727	244	177	12.6	120	0.734	0.0373	40.3
1997	59	0.004	20.0	15.3	19.9	17.0	4693	243	179	12.4	120	0.741	0.0380	40.0
1998	48	0.003	20.2	15.4	20.2	17.3	4713	238	180	12.4	121	0.762	0.0382	40.7
1999	40	0.003	20.4	15.5	20.4	17.4	4747	250	186	12.1	122	0.744	0.0392	41.3
2000	46	0.003	20.5	15.7	20.3	17.5	4764	252	181	12.4	120	0.717	0.0380	41.7
2001	31	0.002	20.8	15.9	20.6	17.7	4858	247	203	11.5	126	0.827	0.0417	43.3
2002	38	0.002	19.8	15.0	20.0	16.9	4772	240	195	11.7	125	0.824	0.0409	41.1
2003	167	0.011	18.4	14.1	18.3	15.7	5578	304	259	10.7	135	0.854	0.0459	43.9
2004	53	0.003	20.5	15.7	20.4	17.5	5042	255	223	11.1	130	0.884	0.0438	44.4

Percent of Four Wheel Drive Vans:

MODEL YEAR	TRANSMISSION		FUEL METERING			FOUR			VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE	SMALL	MID	LARGE
1985	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1986	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1987	77.1	22.9	67.5	67.5	0.0	32.5	0.0	0.0	100.0	0.0	0.0
1988	89.7	10.3	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1989	61.4	37.2	100.0	100.0	0.0	0.0	0.0	0.0	82.6	17.4	0.0
1990	3.2	92.5	100.0	85.0	15.0	0.0	0.0	0.0	8.4	91.6	0.0
1991	4.5	95.4	100.0	85.9	14.1	0.0	0.0	0.0	3.8	96.2	0.0
1992	3.3	96.7	100.0	91.1	8.9	0.0	0.0	0.0	9.3	90.7	0.0
1993	0.2	99.5	100.0	100.0	0.0	0.0	0.0	0.0	0.3	99.4	0.3
1994	0.5	99.5	100.0	97.5	2.5	0.0	0.0	3.2	4.0	96.0	0.0
1995	0.4	99.6	100.0	100.0	0.0	0.0	0.0	6.2	2.9	97.1	0.0
1996	0.1	99.9	100.0	100.0	0.0	0.0	0.0	3.6	0.4	99.6	0.0
1997	0.0	100.0	100.0	100.0	0.0	0.0	0.0	2.2	0.0	100.0	0.0
1998	0.0	100.0	100.0	100.0	0.0	0.0	0.0	17.9	0.0	100.0	0.0
1999	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
2000	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
2001	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
2002	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
2003	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	32.3	67.7
2004	0.0	100.0	100.0	100.0	0.0	0.0	0.0	13.7	0.0	71.2	28.8

# Appendix I

Table I-7

Characteristics of 1975 to 2004 Front Drive SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1995	0	0.000	25.6	20.0	24.5	21.8	3500	122	94	16.0	102	0.768	0.0255	38.1
1996	18	0.001	30.6	24.0	29.3	26.1	2947	122	120	11.7	116	0.984	0.0407	38.5
1997	30	0.002	29.7	23.4	28.0	25.3	2987	122	120	11.8	116	0.984	0.0401	37.7
1998	47	0.003	29.1	23.0	27.2	24.7	3204	121	125	12.1	116	1.035	0.0393	39.6
1999	75	0.005	27.5	21.7	25.9	23.4	3466	139	161	10.8	126	1.148	0.0458	40.5
2000	79	0.005	26.8	21.1	25.3	22.8	3561	145	170	10.6	128	1.163	0.0471	40.5
2001	293	0.019	25.8	19.8	25.5	22.0	3656	164	181	10.2	131	1.115	0.0497	40.4
2002	395	0.025	26.3	20.2	25.9	22.4	3658	165	180	10.2	131	1.099	0.0492	41.1
2003	522	0.033	25.6	19.8	25.2	21.9	3784	168	179	10.5	129	1.075	0.0477	41.4
2004	497	0.030	26.0	19.9	25.9	22.2	3775	183	193	9.9	134	1.060	0.0510	42.0

Percent of Front Drive SUVs:

MODEL YEAR	TRANSMISSION		FUEL		METERING		FOUR		VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE	SMALL	MID	LARGE
1995	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1996	23.2	76.8	100.0	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0
1997	27.1	72.9	100.0	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0
1998	13.0	87.0	100.0	100.0	0.0	0.0	0.0	100.0	59.1	40.9	0.0
1999	5.8	94.2	100.0	100.0	0.0	0.0	0.0	100.0	36.5	63.5	0.0
2000	3.2	96.8	100.0	100.0	0.0	0.0	0.0	100.0	27.2	72.8	0.0
2001	5.9	94.1	100.0	100.0	0.0	0.0	0.0	87.9	13.8	74.1	12.0
2002	6.1	93.7	100.0	100.0	0.0	0.0	0.0	81.9	18.1	72.2	9.7
2003	6.2	84.4	100.0	100.0	0.0	0.0	0.0	93.1	20.2	78.5	1.4
2004	4.1	90.1	100.0	100.0	0.0	0.0	0.0	85.2	8.3	82.0	9.7

# Appendix I

Table I-8

Characteristics of 1975 to 2004 Rear Drive SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	30	0.003	13.3	10.6	12.5	11.3	4374	324	148	13.8	113	0.450	0.0323	25.1
1976	36	0.003	13.2	10.3	12.6	11.2	4423	326	145	14.1	112	0.444	0.0316	25.5
1977	49	0.003	14.6	11.6	13.5	12.4	4379	317	146	13.9	113	0.460	0.0323	27.7
1978	44	0.003	13.8	10.9	13.0	11.8	4410	316	147	13.7	113	0.468	0.0325	26.4
1979	123	0.009	11.6	9.7	9.9	9.8	4915	344	144	15.6	109	0.430	0.0290	24.2
1980	21	0.002	14.5	11.4	13.6	12.3	5039	341	161	14.2	113	0.471	0.0313	31.1
1981	13	0.001	16.0	12.8	14.7	13.6	4895	326	162	13.9	114	0.496	0.0323	33.3
1982	33	0.003	20.4	16.3	19.0	17.4	4138	267	126	14.8	109	0.492	0.0309	36.0
1983	56	0.005	21.1	16.6	19.9	18.0	3921	237	122	14.5	108	0.548	0.0313	35.6
1984	93	0.007	19.8	15.3	19.3	16.9	4112	247	128	14.5	109	0.549	0.0311	35.1
1985	144	0.010	20.1	15.4	20.1	17.2	4033	237	128	14.3	109	0.571	0.0317	35.0
1986	107	0.007	19.6	15.1	19.2	16.7	4142	248	139	13.7	112	0.602	0.0336	34.7
1987	140	0.009	20.6	15.6	20.6	17.6	4074	232	151	12.7	117	0.676	0.0370	35.6
1988	158	0.010	20.7	15.8	20.7	17.7	4064	244	155	12.3	118	0.662	0.0386	35.6
1989	161	0.011	20.6	15.8	20.5	17.6	4078	262	163	11.9	121	0.641	0.0403	35.7
1990	114	0.009	20.0	15.3	19.9	17.1	4290	264	170	12.0	121	0.666	0.0398	36.3
1991	256	0.020	21.2	16.4	20.5	18.0	3918	228	151	12.5	118	0.674	0.0384	35.3
1992	277	0.023	20.9	16.2	20.2	17.8	3882	221	158	12.0	120	0.725	0.0405	34.5
1993	529	0.040	20.1	15.4	19.9	17.1	3994	247	181	11.0	127	0.745	0.0453	34.3
1994	378	0.027	20.9	16.1	20.5	17.8	3994	231	170	11.5	124	0.761	0.0426	35.4
1995	377	0.025	20.3	15.6	20.1	17.3	4179	240	168	12.0	122	0.728	0.0406	36.1
1996	529	0.040	20.6	15.7	20.4	17.5	4199	241	180	11.4	125	0.769	0.0430	36.8
1997	666	0.046	20.7	15.9	20.4	17.7	4222	240	186	11.1	126	0.800	0.0440	37.2
1998	701	0.048	20.6	15.8	20.4	17.6	4223	247	190	10.9	128	0.792	0.0449	37.1
1999	902	0.059	20.0	15.3	19.8	17.1	4452	263	203	10.8	129	0.792	0.0454	37.9
2000	954	0.058	20.3	15.6	20.0	17.3	4360	248	198	10.9	129	0.818	0.0452	37.7
2001	941	0.060	20.3	15.7	19.8	17.3	4462	250	213	10.4	132	0.874	0.0477	38.5
2002	1121	0.070	20.1	15.3	20.0	17.1	4633	256	230	10.1	136	0.904	0.0495	39.6
2003	1116	0.071	19.4	14.8	19.5	16.6	4968	280	251	9.9	139	0.905	0.0510	41.1
2004	937	0.056	20.0	15.3	19.9	17.1	4828	266	244	9.9	138	0.925	0.0509	41.0

Percent of Rear Drive SUVs:

MODEL YEAR	TRANSMISSION		FUEL	METERING			FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	SMALL	MID	LARGE
1975	33.4	0.0	0.0	0.0	0.0	100.0	0.0	21.1	47.9	31.1
1976	35.8	0.0	0.0	0.0	0.0	100.0	0.0	23.6	41.7	34.7
1977	42.3	0.0	0.0	0.0	0.0	100.0	0.0	30.3	41.1	28.6
1978	46.4	0.0	0.0	0.0	0.0	100.0	0.0	30.1	37.4	32.5
1979	19.9	1.8	0.0	0.0	0.0	100.0	0.0	10.8	14.7	74.5
1980	14.9	84.2	0.0	0.0	0.0	100.0	0.0	0.0	20.4	79.6
1981	2.3	97.7	0.0	0.0	0.0	100.0	0.0	0.0	19.6	80.4
1982	1.7	60.7	0.0	0.0	0.0	76.5	23.5	32.9	20.7	46.4
1983	11.6	63.9	0.0	0.0	0.0	88.6	11.4	22.6	39.5	38.0
1984	11.5	74.6	0.0	0.0	0.0	94.4	5.6	3.3	60.3	36.4
1985	9.7	78.8	3.3	0.0	0.0	94.2	2.5	0.0	72.6	27.4
1986	10.0	86.0	48.0	0.0	47.9	49.7	2.3	0.0	63.4	36.5
1987	9.6	87.6	92.5	22.1	70.4	6.7	0.9	16.3	57.8	25.9
1988	17.0	81.3	98.9	33.3	65.6	0.4	0.7	24.3	49.8	25.8
1989	19.5	78.5	98.5	29.9	68.6	0.9	0.6	21.4	52.7	25.9
1990	20.9	73.9	96.3	38.5	57.8	2.9	0.7	23.7	40.2	36.2
1991	20.0	79.2	99.0	45.3	53.7	0.7	0.3	18.3	72.0	9.8
1992	22.5	77.5	98.9	63.6	35.3	1.1	0.0	17.4	73.8	8.8
1993	10.2	89.8	99.4	82.9	16.5	0.6	0.0	9.1	82.2	8.6
1994	17.5	75.8	100.0	78.5	21.5	0.0	0.0	16.1	69.1	14.8
1995	15.2	84.8	100.0	77.5	22.5	0.0	0.0	6.7	76.1	17.1
1996	10.2	89.8	100.0	100.0	0.0	0.0	0.0	4.4	84.5	11.1
1997	11.5	85.2	100.0	100.0	0.0	0.0	0.0	11.4	66.3	22.3
1998	6.8	93.2	100.0	100.0	0.0	0.0	0.0	7.9	63.1	28.9
1999	4.4	95.6	100.0	100.0	0.0	0.0	0.0	4.3	56.5	39.3
2000	3.6	96.4	100.0	100.0	0.0	0.0	0.0	11.5	54.3	34.2
2001	3.1	96.9	100.0	100.0	0.0	0.0	0.0	11.1	44.4	44.5
2002	2.4	97.6	100.0	100.0	0.0	0.0	0.0	2.8	35.4	61.9
2003	0.8	99.2	100.0	100.0	0.0	0.0	0.0	0.5	35.3	64.3
2004	2.1	97.9	100.0	100.0	0.0	0.0	0.0	1.2	40.4	58.4

# Appendix I

Table I-9

Characteristics of 1975 to 2004 Four Wheel Drive SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	157	0.015	12.9	10.6	11.5	11.0	4169	329	145	13.2	115	0.439	0.0357	22.6
1976	208	0.017	13.9	11.3	12.5	11.8	4293	337	140	14.0	112	0.412	0.0328	25.1
1977	234	0.017	15.2	12.3	13.7	12.9	4200	335	143	13.5	113	0.425	0.0343	26.9
1978	336	0.023	14.5	11.7	13.2	12.3	4251	342	149	13.2	115	0.432	0.0351	26.0
1979	278	0.020	13.0	10.8	11.4	11.1	4329	325	143	13.9	113	0.442	0.0335	23.9
1980	164	0.014	15.7	12.6	14.2	13.3	4135	289	127	14.8	108	0.450	0.0303	27.6
1981	123	0.012	16.9	13.5	15.6	14.4	4134	286	128	14.5	109	0.456	0.0311	29.8
1982	129	0.013	17.0	13.6	15.8	14.5	4403	300	130	15.1	108	0.443	0.0297	32.7
1983	233	0.023	18.6	14.6	17.8	15.9	4188	257	124	15.1	107	0.513	0.0298	33.8
1984	531	0.038	19.2	15.1	18.2	16.3	3979	223	119	15.1	107	0.561	0.0298	33.0
1985	592	0.041	19.7	15.4	19.1	16.8	4014	210	120	15.1	107	0.594	0.0296	34.2
1986	666	0.043	20.3	15.9	19.3	17.3	3885	200	125	14.2	110	0.666	0.0323	33.9
1987	733	0.049	20.7	16.1	19.8	17.6	3795	204	134	13.4	113	0.688	0.0351	33.5
1988	810	0.053	20.4	15.9	19.5	17.4	3819	214	141	12.9	115	0.691	0.0369	33.2
1989	765	0.053	19.8	15.5	19.0	16.9	4005	237	153	12.5	118	0.671	0.0384	34.0
1990	594	0.047	19.8	15.4	19.1	16.9	3998	226	151	12.6	117	0.701	0.0380	33.7
1991	839	0.067	20.1	15.5	19.6	17.1	4117	230	160	12.3	119	0.712	0.0390	35.4
1992	726	0.060	19.5	15.1	19.1	16.6	4162	232	168	11.9	122	0.741	0.0409	34.6
1993	781	0.059	19.7	15.3	19.3	16.8	4267	239	177	11.6	124	0.761	0.0421	35.9
1994	1207	0.086	19.3	15.0	18.8	16.5	4297	242	180	11.6	124	0.761	0.0423	35.5
1995	1439	0.095	19.4	15.0	18.9	16.5	4275	241	178	11.6	124	0.761	0.0420	35.4
1996	1343	0.102	19.7	15.1	19.5	16.8	4335	258	188	11.3	126	0.744	0.0436	36.5
1997	1754	0.121	19.8	15.3	19.3	16.9	4392	250	187	11.4	125	0.770	0.0426	37.0
1998	1833	0.127	19.7	15.2	19.5	16.9	4414	249	188	11.4	126	0.781	0.0427	37.3
1999	1860	0.122	20.0	15.4	19.5	17.0	4411	241	197	11.0	128	0.847	0.0447	37.6
2000	2110	0.127	19.8	15.3	19.3	16.9	4536	247	202	11.0	128	0.842	0.0445	38.3
2001	2095	0.134	20.1	15.5	19.5	17.1	4523	235	210	10.6	131	0.927	0.0465	38.7
2002	2663	0.165	20.2	15.5	19.8	17.2	4587	238	224	10.2	135	0.962	0.0489	39.5
2003	2615	0.167	20.7	15.8	20.5	17.6	4623	237	226	10.2	135	0.978	0.0488	40.8
2004	2899	0.174	20.7	15.8	20.6	17.7	4730	241	238	10.0	137	1.007	0.0503	41.7

Percent of Four Wheel Drive SUVs:

MODEL YEAR	TRANSMISSION		FUEL METERING					FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL		SMALL	MID	LARGE
1975	42.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0	30.0	69.1	0.9
1976	33.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0	24.7	73.5	1.8
1977	34.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0	24.3	74.3	1.4
1978	32.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0	23.1	75.3	1.6
1979	39.2	0.0	0.0	0.0	0.0	99.7	0.3	0.0	32.8	60.9	6.3
1980	47.2	18.8	0.0	0.0	0.0	97.4	2.6	0.0	37.0	58.7	4.3
1981	45.0	35.1	0.0	0.0	0.0	100.0	0.0	0.0	34.7	62.4	2.9
1982	37.0	37.4	0.0	0.0	0.0	86.8	13.2	0.0	24.5	70.7	4.8
1983	37.0	48.2	0.0	0.0	0.0	94.4	5.6	0.0	18.3	77.7	4.0
1984	32.5	37.4	0.0	0.0	0.0	98.3	1.7	0.0	26.7	70.5	2.8
1985	32.3	55.6	5.9	0.0	0.0	92.9	1.2	0.0	19.5	77.5	3.0
1986	41.7	50.9	49.9	27.8	22.1	48.7	1.4	0.0	26.5	70.6	2.9
1987	42.1	48.5	71.5	35.1	36.3	28.2	0.3	0.0	31.6	65.6	2.8
1988	36.6	55.3	81.2	50.2	31.1	18.6	0.2	0.0	30.8	65.7	3.5
1989	27.5	63.8	92.4	49.5	42.9	7.4	0.2	0.0	25.3	70.5	4.2
1990	31.3	65.0	94.2	60.9	33.3	5.6	0.2	0.0	27.4	67.5	5.2
1991	22.4	76.0	99.4	63.9	35.5	0.4	0.1	0.0	10.6	85.9	3.5
1992	22.4	76.7	100.0	76.7	23.3	0.0	0.0	0.0	11.1	81.9	7.0
1993	20.2	78.8	100.0	87.6	12.4	0.0	0.0	0.0	12.2	77.1	10.7
1994	14.9	85.1	100.0	89.1	10.9	0.0	0.0	7.1	9.5	81.1	9.4
1995	15.3	84.7	100.0	87.8	12.2	0.0	0.0	16.8	11.4	77.1	11.5
1996	6.2	93.8	100.0	100.0	0.0	0.0	0.0	11.8	5.9	80.5	13.6
1997	11.4	88.6	100.0	100.0	0.0	0.0	0.0	19.5	21.8	54.7	23.4
1998	8.5	91.5	100.0	100.0	0.0	0.0	0.0	20.4	12.7	63.4	24.0
1999	7.3	92.7	100.0	100.0	0.0	0.0	0.0	26.0	13.4	65.1	21.5
2000	5.8	94.2	100.0	100.0	0.0	0.0	0.0	23.5	12.7	61.0	26.2
2001	4.8	95.2	100.0	100.0	0.0	0.0	0.0	41.0	11.7	53.0	35.3
2002	4.2	95.7	100.0	100.0	0.0	0.0	0.0	45.8	8.0	42.1	49.9
2003	1.8	96.5	100.0	100.0	0.0	0.0	0.0	54.1	7.6	55.6	36.8
2004	3.2	94.9	100.0	100.0	0.0	0.0	0.0	58.0	6.1	50.8	43.1

# Appendix I

Table I-10 Characteristics of 1975 to 2004 Front Drive Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1980	26	0.002	31.3	24.8	29.4	26.7	2265	94	65	15.8	99	0.685	0.0284	32.0
1981	33	0.003	36.9	29.1	34.8	31.4	2318	99	59	16.9	96	0.592	0.0252	37.1
1982	32	0.003	33.0	25.8	31.7	28.1	2439	119	72	15.2	101	0.605	0.0292	35.1
1983	31	0.003	31.1	23.8	31.0	26.5	2604	133	89	13.5	107	0.665	0.0337	34.8
1984	12	0.001	28.1	21.2	28.6	24.0	2640	135	90	13.3	107	0.666	0.0338	31.7
1987	0	0.000	20.0	14.7	21.5	17.1	4000	249	135	13.7	112	0.542	0.0327	34.2
1988	0	0.000	20.8	15.4	22.2	17.8	4000	275	155	12.2	119	0.560	0.0380	35.7

Percent of Front Drive Pickup Trucks:

MODEL YEAR	TRANSMISSION		FUEL	METERING				FOUR	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE	SMALL	MID	LARGE
1980	94.0	0.0	57.3	0.0	0.0	0.0	42.7	0.0	100.0	0.0	0.0
1981	100.0	0.0	27.2	0.0	0.0	0.0	72.8	0.0	100.0	0.0	0.0
1982	77.4	0.0	10.7	0.0	0.0	55.3	34.0	0.0	100.0	0.0	0.0
1983	55.7	0.0	2.8	0.0	0.0	94.5	2.7	0.0	100.0	0.0	0.0
1984	71.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0
1987	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
1988	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0

# Appendix I

Table I-11

Characteristics of 1975 to 2004 Rear Drive Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	1161	0.114	14.5	11.4	13.8	12.4	3885	299	139	13.4	114	0.499	0.0354	24.6
1976	1476	0.120	15.4	12.3	14.2	13.1	3948	305	136	13.8	112	0.476	0.0341	26.5
1977	1593	0.113	16.8	13.5	15.3	14.2	3928	299	141	13.2	115	0.507	0.0357	28.7
1978	1656	0.115	16.7	13.6	15.0	14.2	3901	291	138	13.3	114	0.506	0.0351	28.6
1979	1930	0.139	15.5	12.7	13.8	13.2	4170	291	136	14.3	111	0.495	0.0326	28.1
1980	1108	0.098	20.1	16.0	18.6	17.1	3689	235	117	14.3	108	0.545	0.0317	31.8
1981	1164	0.110	21.1	16.7	19.6	17.9	3707	243	117	14.4	108	0.511	0.0314	33.7
1982	1154	0.119	22.0	17.4	20.6	18.7	3595	230	117	14.1	109	0.542	0.0325	34.2
1983	1238	0.120	22.6	17.9	21.3	19.2	3463	210	111	14.3	108	0.563	0.0319	34.0
1984	1526	0.109	22.1	17.4	20.9	18.8	3519	212	112	14.4	108	0.562	0.0317	33.6
1985	1550	0.107	21.9	17.3	20.6	18.7	3527	218	121	13.6	111	0.585	0.0340	33.5
1986	1895	0.123	23.0	18.2	21.6	19.6	3439	201	117	13.6	110	0.619	0.0339	34.0
1987	1598	0.108	23.5	18.4	22.4	20.0	3385	195	119	13.4	111	0.635	0.0347	34.2
1988	1760	0.115	22.5	17.6	21.6	19.2	3578	220	130	13.1	113	0.620	0.0360	34.6
1989	1586	0.110	22.2	17.3	21.3	18.9	3633	226	137	12.7	115	0.630	0.0372	34.6
1990	1322	0.105	21.7	16.9	21.1	18.5	3759	236	146	12.4	117	0.651	0.0385	35.2
1991	1443	0.115	22.9	17.7	22.3	19.5	3608	222	139	12.4	116	0.656	0.0383	35.4
1992	1356	0.111	21.9	16.9	21.6	18.7	3810	235	145	12.5	117	0.645	0.0379	35.9
1993	1449	0.110	22.2	17.1	21.9	18.9	3825	234	150	12.2	118	0.668	0.0390	36.4
1994	1808	0.129	22.3	17.2	21.9	19.0	3853	234	155	12.0	120	0.693	0.0400	37.0
1995	1521	0.100	21.8	16.8	21.5	18.6	3960	239	158	12.0	120	0.703	0.0398	37.3
1996	1382	0.105	22.0	16.9	21.7	18.8	3992	235	167	11.7	122	0.744	0.0415	37.9
1997	1574	0.109	21.9	16.8	21.7	18.7	4123	244	184	11.2	126	0.770	0.0439	38.8
1998	1574	0.109	22.3	17.1	22.1	19.0	4021	231	177	11.3	125	0.788	0.0436	38.5
1999	1397	0.092	21.5	16.5	21.4	18.4	4113	241	186	11.0	127	0.787	0.0447	37.9
2000	1610	0.097	21.6	16.6	21.2	18.4	4113	237	190	11.0	128	0.810	0.0454	37.9
2001	1597	0.102	20.7	15.9	20.4	17.7	4347	252	204	10.7	130	0.819	0.0463	38.5
2002	1373	0.085	20.5	15.8	20.0	17.5	4473	256	214	10.5	132	0.841	0.0475	39.1
2003	1429	0.091	21.0	16.2	20.5	17.9	4411	249	214	10.6	133	0.861	0.0477	39.5
2004	1503	0.090	20.5	15.8	20.1	17.5	4752	273	238	10.1	137	0.874	0.0498	41.5

Percent of Rear Drive Pickup Trucks:

MODEL YEAR	TRANSMISSION		FUEL	METERING			FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	SMALL	MID	LARGE
1975	41.5	0.0	0.0	0.0	0.0	100.0	0.0	13.8	4.8	81.4
1976	40.3	0.0	0.0	0.0	0.0	100.0	0.0	11.7	3.7	84.6
1977	39.0	0.0	0.0	0.0	0.0	100.0	0.0	15.1	4.1	80.8
1978	40.0	0.0	0.0	0.0	0.0	98.4	1.6	14.5	4.5	80.9
1979	36.3	1.5	0.0	0.0	0.0	97.2	2.8	13.7	5.2	81.1
1980	55.8	23.4	0.0	0.0	0.0	95.7	4.3	28.4	8.8	62.8
1981	52.6	31.0	0.0	0.0	0.0	93.8	6.2	18.8	11.2	70.0
1982	49.4	32.9	0.0	0.0	0.0	90.2	9.8	18.0	26.2	55.8
1983	53.3	31.1	0.0	0.0	0.0	95.7	4.3	14.9	41.5	43.6
1984	52.1	32.9	1.3	0.0	0.0	96.0	2.7	17.9	37.0	45.0
1985	47.9	36.2	16.6	0.0	0.4	82.2	1.1	21.9	31.9	46.2
1986	56.7	30.8	36.1	18.6	17.5	63.3	0.6	27.5	34.6	37.9
1987	58.0	28.4	56.7	23.7	33.1	43.0	0.3	19.4	52.3	28.3
1988	51.5	37.9	78.8	30.1	48.7	21.0	0.1	11.9	48.1	40.0
1989	52.5	41.5	86.4	34.0	52.4	13.5	0.1	13.9	45.5	40.7
1990	46.2	49.1	91.5	52.0	39.6	8.3	0.1	15.0	37.8	47.2
1991	53.7	44.9	95.7	46.1	49.6	4.2	0.1	14.0	51.5	34.5
1992	48.3	50.6	95.5	57.4	38.1	4.4	0.1	11.7	44.6	43.7
1993	45.2	53.7	97.1	60.6	36.5	2.9	0.0	13.2	42.1	44.7
1994	42.9	55.7	98.9	71.3	27.5	1.1	0.0	12.0	43.9	44.1
1995	45.2	53.4	100.0	72.9	27.1	0.0	0.0	12.2	38.9	48.9
1996	38.5	59.6	99.9	99.9	0.0	0.0	0.1	10.1	43.3	46.6
1997	31.2	68.8	100.0	100.0	0.0	0.0	0.0	6.6	36.2	57.2
1998	31.3	66.4	100.0	100.0	0.0	0.0	0.0	10.0	42.2	47.9
1999	22.6	75.7	100.0	100.0	0.0	0.0	0.0	8.3	39.3	52.4
2000	20.4	78.3	100.0	100.0	0.0	0.0	0.0	6.2	33.8	59.9
2001	14.1	84.6	100.0	100.0	0.0	0.0	0.0	5.1	23.6	71.3
2002	11.4	87.1	100.0	100.0	0.0	0.0	0.0	9.6	19.8	70.6
2003	11.5	86.9	100.0	100.0	0.0	0.0	0.0	8.3	27.7	64.0
2004	8.5	90.4	100.0	100.0	0.0	0.0	0.0	6.0	15.2	78.7

# Appendix I

Table I-12 Characteristics of 1975 to 2004 Four Wheel Drive Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	182	0.018	11.4	9.3	10.2	9.7	4822	353	154	14.2	113	0.436	0.0319	23.6
1976	390	0.032	12.4	10.1	11.2	10.5	4780	359	154	14.2	113	0.427	0.0321	25.3
1977	433	0.031	13.6	11.1	12.1	11.5	4695	363	164	13.4	116	0.451	0.0350	27.2
1978	612	0.042	13.5	11.1	12.0	11.5	4654	348	160	13.5	115	0.468	0.0344	26.8
1979	277	0.020	15.6	13.0	14.2	13.5	3947	260	132	14.2	110	0.551	0.0324	27.3
1980	302	0.027	16.9	13.6	15.4	14.3	4054	251	126	14.6	108	0.552	0.0306	29.1
1981	242	0.023	19.6	15.7	18.1	16.7	3732	224	115	14.6	107	0.560	0.0305	31.4
1982	255	0.026	19.7	15.8	18.2	16.8	3934	236	119	14.7	107	0.552	0.0303	33.5
1983	359	0.035	20.3	16.1	19.0	17.3	3901	224	117	14.8	107	0.564	0.0298	34.1
1984	505	0.036	19.7	15.6	18.4	16.8	3943	226	120	14.8	107	0.564	0.0300	33.5
1985	528	0.037	19.9	15.7	18.7	16.9	3981	230	129	14.0	110	0.597	0.0322	34.1
1986	638	0.042	20.2	16.0	19.0	17.2	3974	219	130	14.0	110	0.634	0.0326	34.5
1987	548	0.037	20.0	15.8	18.8	17.1	3937	222	137	13.4	113	0.647	0.0345	33.8
1988	699	0.046	19.3	15.1	18.4	16.4	4137	253	156	12.6	117	0.644	0.0374	34.2
1989	645	0.045	19.0	14.9	18.1	16.2	4221	259	158	12.7	117	0.638	0.0371	34.4
1990	512	0.041	18.6	14.4	18.0	15.8	4364	273	166	12.5	119	0.637	0.0378	34.7
1991	477	0.038	18.9	14.7	18.3	16.1	4299	262	167	12.2	120	0.666	0.0386	34.8
1992	484	0.040	18.5	14.3	18.1	15.8	4442	272	167	12.6	119	0.638	0.0374	35.2
1993	553	0.042	18.8	14.5	18.3	16.0	4444	270	172	12.3	120	0.661	0.0384	35.6
1994	783	0.056	18.6	14.4	18.1	15.8	4528	278	180	12.1	122	0.668	0.0395	35.9
1995	750	0.050	18.0	13.9	17.6	15.4	4633	292	185	11.9	123	0.655	0.0399	35.7
1996	573	0.044	18.3	14.1	18.0	15.6	4668	291	204	11.2	128	0.719	0.0437	36.5
1997	834	0.058	18.2	13.9	18.1	15.5	4965	302	218	11.1	129	0.729	0.0438	38.5
1998	841	0.058	18.3	14.0	18.2	15.6	4771	291	213	11.0	130	0.745	0.0445	37.2
1999	1153	0.076	18.2	14.1	17.8	15.6	4937	299	227	10.8	132	0.763	0.0459	38.3
2000	1003	0.061	18.9	14.7	18.3	16.1	4705	284	224	10.5	133	0.791	0.0473	37.9
2001	1025	0.066	18.2	14.1	17.7	15.5	4866	293	234	10.3	135	0.805	0.0480	37.7
2002	1008	0.063	18.2	14.1	17.7	15.5	4985	291	242	10.3	136	0.834	0.0486	38.7
2003	944	0.060	18.7	14.5	18.2	16.0	4902	283	241	10.3	136	0.852	0.0489	39.1
2004	1027	0.062	19.0	14.7	18.6	16.2	5195	292	261	10.1	139	0.898	0.0500	42.1

Percent of Four Wheel Drive Pickup Trucks:

MODEL YEAR	TRANSMISSION		FUEL METERING					FOUR VALVE	VEHICLE SIZE		
	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL		SMALL	MID	LARGE
1975	38.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
1976	33.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
1977	24.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0
1978	30.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0	3.8	0.0	96.2
1979	64.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0	34.0	0.0	66.0
1980	66.8	18.6	0.0	0.0	0.0	99.7	0.3	0.0	36.7	0.0	63.3
1981	76.4	14.7	0.0	0.0	0.0	97.7	2.3	0.0	48.1	0.0	51.9
1982	71.4	17.7	0.0	0.0	0.0	90.4	9.6	0.0	41.8	5.1	53.1
1983	66.6	19.9	0.1	0.0	0.0	95.2	4.8	0.0	26.8	30.0	43.2
1984	62.7	19.1	0.1	0.0	0.0	97.2	2.7	0.0	27.2	27.3	45.5
1985	62.4	26.2	13.8	0.0	0.0	84.6	1.5	0.0	29.8	23.1	47.1
1986	63.3	29.4	46.7	29.0	17.7	52.5	0.7	0.0	34.9	20.7	44.4
1987	59.9	30.1	65.3	36.4	28.8	34.4	0.4	0.0	23.8	39.4	36.7
1988	49.7	40.9	95.8	48.7	47.1	3.8	0.4	0.0	18.7	29.9	51.4
1989	52.3	41.5	98.3	50.5	47.8	1.5	0.3	0.0	20.9	25.7	53.4
1990	44.9	51.7	99.7	53.5	46.1	0.0	0.3	0.0	17.8	19.6	62.6
1991	47.5	50.8	99.6	53.5	46.1	0.0	0.4	0.0	22.5	27.2	50.3
1992	43.7	56.2	99.7	59.7	40.0	0.0	0.3	0.0	19.2	22.9	57.9
1993	40.5	59.5	100.0	62.9	37.1	0.0	0.0	0.0	12.9	24.2	63.0
1994	34.6	65.4	100.0	62.2	37.8	0.0	0.0	0.0	18.1	22.5	59.5
1995	28.3	71.7	100.0	62.8	37.2	0.0	0.0	9.5	15.0	14.5	70.5
1996	25.5	74.5	99.6	99.6	0.0	0.0	0.4	14.3	14.1	17.4	68.5
1997	14.0	86.0	99.9	99.9	0.0	0.0	0.1	2.0	3.3	14.4	82.4
1998	19.9	80.1	99.9	99.9	0.0	0.0	0.1	13.0	12.3	19.7	68.1
1999	11.4	88.6	100.0	100.0	0.0	0.0	0.0	6.9	8.4	18.6	73.0
2000	10.7	89.3	100.0	100.0	0.0	0.0	0.0	13.3	0.1	22.0	77.9
2001	7.7	92.3	100.0	100.0	0.0	0.0	0.0	10.6	0.0	16.2	83.8
2002	7.0	93.0	100.0	100.0	0.0	0.0	0.0	13.2	6.4	19.3	74.2
2003	8.3	91.7	100.0	100.0	0.0	0.0	0.0	12.9	8.1	16.8	75.0
2004	7.0	93.0	100.0	100.0	0.0	0.0	0.0	21.7	9.1	10.3	80.6



# Appendix J

Table J-1 Characteristics of 1978 to 2004 OTHER TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	45	0.003	28.7	23.8	25.1	24.3	2151	85.7	92	64	14.7	100	0.698	0.0298	26.3	2097	2272
1979	131	0.009	29.3	24.1	25.9	24.9	2251	86.0	96	68	14.6	101	0.715	0.0303	28.6	2206	2471
1980	91	0.008	34.2	27.9	30.5	29.0	2132	88.4	93	73	13.2	105	0.789	0.0343	31.2	2581	2758
1981	51	0.005	34.9	27.9	32.0	29.6	2250	87.8	96	78	13.1	106	0.816	0.0348	33.4	2603	2928
1982	37	0.004	36.6	29.3	33.5	31.1	2200	87.8	91	67	14.4	101	0.740	0.0305	34.2	2734	3003
1983	36	0.004	35.4	28.3	32.7	30.1	2277	89.2	94	70	14.3	102	0.747	0.0306	34.4	2706	3067
1984	3	0.000	33.1	26.4	30.6	28.2	2545	93.5	117	88	13.4	107	0.756	0.0338	35.8	2643	3352
1986	0	0.000	23.0	17.5	23.3	19.7	2750	50.0	170	160	8.8	136	0.937	0.0567	27.1	984	1353
1989	12	0.001	39.6	33.0	34.2	33.5	2250	88.6	73	66	15.3	100	0.904	0.0293	37.7	2972	3343
1990	4	0.000	33.0	27.1	29.2	28.0	2515	83.6	99	104	13.1	113	1.022	0.0381	35.7	2512	3004
1991	5	0.000	30.8	24.9	27.9	26.2	2621	80.8	113	121	12.4	118	1.034	0.0422	34.8	2324	2840
1992	1	0.000	25.0	18.7	25.9	21.3	3210	68.8	164	199	9.3	142	1.184	0.0565	34.6	1615	2404
1993	1	0.000	29.9	23.7	27.9	25.4	2718	78.7	117	133	12.0	121	1.080	0.0420	35.0	2206	2772
1996	1	0.000	40.4	32.7	36.4	34.3	2750	97.1	97	115	11.5	117	1.185	0.0417	47.1	3328	4577
1997	7	0.000	41.9	34.0	37.8	35.6	2750	99.5	97	115	11.5	117	1.185	0.0418	49.0	3543	4871
1998	5	0.000	42.4	34.2	38.5	36.0	2750	97.1	97	115	11.5	117	1.185	0.0417	49.6	3500	4813
1999	2	0.000	41.8	33.7	38.0	35.5	2750	97.1	97	115	11.5	117	1.185	0.0416	48.9	3451	4744
2000	2	0.000	41.9	33.7	38.2	35.6	2750	97.1	97	115	11.5	117	1.185	0.0417	49.0	3458	4754
2001	19	0.001	55.7	48.9	44.9	47.0	2924	96.3	90	74	17.5	98	0.827	0.0254	69.5	4555	6718
2002	36	0.002	42.5	34.6	38.1	36.1	3091	97.9	104	106	15.3	108	0.962	0.0330	61.4	3954	6028
2003	70	0.004	41.7	33.5	38.1	35.4	3121	98.8	105	113	14.0	111	1.057	0.0353	59.6	3858	5924
2004	142	0.009	34.9	27.2	33.7	29.8	3324	101.9	148	153	12.3	123	1.034	0.0439	55.8	3656	5813

Percent of OTHER TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1978	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	100.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	100.0	0.0	0.0	0.0	10.9	10.9	0.0	89.1	0.0	0.0
1986	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1989	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1990	25.3	56.8	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1991	0.0	72.6	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1992	13.1	10.9	0.0	0.0	100.0	100.0	0.0	0.0	0.0	55.8
1993	0.0	64.7	13.6	0.0	100.0	100.0	0.0	0.0	0.0	14.8
1996	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1997	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1998	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	98.4	1.6	0.0	0.0	100.0	100.0	0.0	0.0	0.0	79.6
2003	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	43.2
2004	79.0	0.0	0.0	21.0	100.0	100.0	0.0	0.0	0.0	68.0

# Appendix J

Table J-2

Characteristics of 1978 to 2004 M-3 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	47	0.003	22.3	17.3	21.6	19.0	3441	113.5	219	100	15.0	104	0.459	0.0291	32.7	2173	3708
1979	23	0.002	22.1	17.4	20.9	18.8	3584	111.7	224	102	15.2	104	0.457	0.0282	33.8	2122	3783
1980	17	0.002	21.1	16.9	19.5	18.0	3526	109.1	228	111	14.2	107	0.484	0.0312	31.8	1964	3464
1981	9	0.001	21.4	16.9	20.2	18.2	3500	103.7	229	115	13.7	109	0.501	0.0323	31.9	1892	3311

Percent of M-3 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1978	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix J

Table J-3 Characteristics of 1978 to 2004 M-4 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	1129	0.078	27.7	21.5	26.9	23.6	2567	88.4	123	82	14.4	104	0.701	0.0315	30.9	2208	2753
1979	1509	0.109	26.8	20.7	26.2	22.8	2606	89.9	123	83	14.5	104	0.696	0.0312	30.1	2133	2723
1980	1733	0.153	28.0	21.5	27.6	23.9	2582	93.9	123	80	14.7	103	0.659	0.0306	31.2	2307	2944
1981	1335	0.127	31.2	24.1	30.6	26.6	2499	99.0	116	78	14.4	103	0.691	0.0312	33.7	2697	3329
1982	1074	0.110	31.3	24.0	31.1	26.7	2556	94.7	117	77	14.9	102	0.675	0.0298	34.5	2596	3272
1983	542	0.053	33.7	26.1	32.7	28.7	2494	98.6	112	75	14.9	102	0.682	0.0297	36.3	2912	3578
1984	668	0.048	35.1	27.2	34.2	30.0	2505	93.6	112	77	14.7	103	0.695	0.0305	38.0	2902	3568
1985	444	0.031	36.4	28.2	35.4	31.0	2508	98.5	110	80	14.2	104	0.733	0.0318	39.3	3149	3887
1986	489	0.032	34.9	27.1	33.7	29.7	2535	95.5	114	83	14.1	105	0.737	0.0323	38.4	2957	3693
1987	344	0.023	35.9	28.4	33.6	30.5	2417	94.4	100	77	14.4	103	0.769	0.0313	37.5	2972	3560
1988	487	0.032	37.1	29.6	34.3	31.6	2354	96.4	97	74	14.4	103	0.761	0.0311	37.5	3112	3632
1989	315	0.022	38.1	30.1	35.8	32.4	2380	98.0	96	79	13.7	105	0.824	0.0330	38.9	3228	3815
1990	194	0.015	37.6	29.8	35.2	32.0	2462	97.1	97	86	13.0	107	0.892	0.0349	39.6	3131	3853
1991	143	0.011	38.8	31.1	35.7	33.0	2417	97.2	91	89	12.5	109	0.975	0.0369	39.9	3218	3886
1992	107	0.009	38.5	30.6	35.8	32.7	2376	96.4	91	88	12.5	109	0.963	0.0371	38.9	3160	3751
1993	78	0.006	38.6	30.8	35.6	32.8	2308	96.2	89	81	12.9	107	0.911	0.0354	37.9	3158	3643
1994	52	0.004	39.2	31.2	36.4	33.4	2250	95.0	89	82	12.6	108	0.921	0.0364	37.5	3170	3566
1995	18	0.001	42.5	33.6	39.9	36.2	2250	90.0	91	93	11.4	113	1.022	0.0413	40.7	3254	3661
1996	20	0.002	42.6	33.7	39.9	36.2	2250	90.0	91	93	11.4	113	1.022	0.0413	40.7	3260	3667
2002	25	0.002	26.3	19.7	27.2	22.5	3500	92.0	161	169	10.3	129	1.046	0.0484	39.4	2070	3622

Percent of M-4 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1978	44.2	0.0	100.0	0.0	21.2	21.2	0.0	75.1	3.7	0.0
1979	32.0	2.5	100.0	0.0	9.8	9.8	0.0	87.5	2.7	0.0
1980	47.2	2.6	100.0	0.0	8.3	8.3	0.0	83.9	7.7	0.0
1981	62.3	3.4	100.0	0.0	4.3	4.3	0.0	88.8	6.9	0.0
1982	69.6	3.7	100.0	0.0	8.0	4.4	3.6	88.5	3.5	0.0
1983	65.4	7.8	100.0	0.0	20.5	7.5	13.0	76.0	3.5	0.0
1984	61.2	5.5	100.0	0.0	34.5	5.7	28.8	61.8	3.7	0.0
1985	74.5	0.8	100.0	0.0	27.5	9.0	18.4	72.1	0.4	0.0
1986	74.2	0.9	100.0	0.0	23.6	14.4	9.1	76.4	0.1	0.2
1987	92.0	1.0	100.0	0.0	45.3	14.2	31.2	54.7	0.0	1.5
1988	97.9	0.6	100.0	0.0	55.6	19.5	36.1	44.4	0.0	4.4
1989	99.3	0.3	100.0	0.0	65.6	20.9	44.7	34.4	0.0	7.6
1990	99.6	0.0	100.0	0.0	90.3	31.9	58.4	9.7	0.0	17.6
1991	100.0	0.0	100.0	0.0	99.6	69.5	30.1	0.4	0.0	41.2
1992	100.0	0.0	100.0	0.0	100.0	97.5	2.5	0.0	0.0	20.0
1993	100.0	0.0	100.0	0.0	100.0	95.8	4.2	0.0	0.0	0.0
1994	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1996	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	100.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix J

Table J-4

Characteristics of 1978 to 2004 M-5 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	1037	0.072	28.7	22.3	27.8	24.5	2564	86.2	114	84	14.1	105	0.753	0.0326	32.0	2203	2767
1979	742	0.053	25.9	19.8	25.7	22.1	2633	82.6	117	85	14.3	105	0.724	0.0317	29.7	1926	2471
1980	1173	0.104	29.1	22.4	28.5	24.8	2541	86.7	110	80	14.4	104	0.726	0.0313	32.0	2240	2792
1981	1263	0.120	31.8	24.8	30.6	27.1	2488	87.2	110	79	14.4	103	0.710	0.0313	34.1	2445	2993
1982	1210	0.124	32.3	25.1	31.2	27.5	2519	89.8	113	81	14.3	104	0.710	0.0317	35.2	2577	3190
1983	1543	0.150	31.9	24.6	31.4	27.3	2583	93.3	120	87	13.9	106	0.732	0.0330	35.8	2670	3375
1984	1908	0.136	31.5	24.2	31.1	26.9	2646	94.3	125	94	13.4	108	0.757	0.0348	36.3	2649	3439
1985	2019	0.140	32.1	24.6	31.7	27.4	2629	93.7	121	95	13.1	109	0.791	0.0357	36.5	2674	3441
1986	2239	0.146	32.2	24.8	31.7	27.5	2684	96.0	122	97	13.2	109	0.805	0.0356	37.4	2739	3597
1987	2328	0.157	31.9	24.5	31.5	27.2	2719	95.5	121	99	13.2	110	0.821	0.0357	37.4	2683	3576
1988	2116	0.138	32.3	24.8	31.8	27.5	2738	96.8	122	103	12.8	111	0.852	0.0369	38.2	2763	3703
1989	1784	0.123	31.8	24.4	31.5	27.2	2786	98.0	125	108	12.4	113	0.883	0.0381	38.2	2745	3751
1990	1528	0.121	31.2	24.0	30.7	26.6	2834	95.9	125	118	11.8	116	0.967	0.0409	38.1	2629	3663
1991	1599	0.127	32.3	24.9	31.7	27.5	2796	95.7	121	117	11.9	116	0.974	0.0407	38.9	2728	3739
1992	1299	0.107	32.5	24.9	32.1	27.7	2813	96.7	121	121	11.6	118	1.009	0.0422	39.6	2787	3835
1993	1416	0.107	33.3	25.5	32.8	28.4	2771	97.1	120	117	11.8	117	0.978	0.0414	39.9	2863	3887
1994	1329	0.095	33.4	25.6	33.2	28.5	2831	97.8	123	119	11.7	117	0.986	0.0413	41.0	2894	4017
1995	1476	0.097	33.2	25.3	33.3	28.4	2869	99.2	125	126	11.3	119	1.026	0.0432	41.2	2908	4096
1996	1125	0.086	33.2	25.3	33.4	28.4	2912	100.1	128	130	11.1	120	1.029	0.0440	41.7	2924	4189
1997	1097	0.076	33.3	25.4	33.5	28.5	2897	98.7	125	129	11.1	120	1.048	0.0440	41.6	2885	4125
1998	954	0.066	32.9	25.0	33.1	28.1	2961	99.6	130	134	10.9	122	1.052	0.0448	42.1	2873	4199
1999	870	0.057	32.0	24.4	32.1	27.3	3001	98.7	131	139	10.7	123	1.079	0.0459	41.4	2763	4106
2000	941	0.057	31.8	24.2	31.8	27.1	3017	99.3	134	141	10.6	124	1.084	0.0464	41.4	2764	4125
2001	851	0.055	32.0	24.5	32.0	27.4	3048	99.8	134	144	10.6	124	1.095	0.0468	42.2	2810	4232
2002	779	0.048	32.0	24.4	32.0	27.3	3081	101.8	132	147	10.5	125	1.126	0.0470	42.6	2852	4344
2003	631	0.040	32.2	24.5	32.2	27.5	3146	101.1	136	152	10.5	126	1.144	0.0477	43.9	2866	4458
2004	823	0.050	31.9	24.2	32.1	27.2	3150	102.3	139	157	10.2	128	1.156	0.0494	43.5	2862	4466

Percent of M-5 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1978	20.5	0.0	100.0	0.0	5.8	5.8	0.0	94.2	0.0	0.0
1979	33.8	0.0	100.0	0.0	16.3	16.3	0.0	81.7	2.0	0.0
1980	39.2	0.0	100.0	0.0	19.5	19.5	0.0	78.1	2.4	0.0
1981	49.8	0.0	100.0	0.0	20.2	20.2	0.0	74.5	5.3	0.0
1982	56.1	0.2	100.0	0.0	20.2	20.2	0.0	74.9	4.9	0.0
1983	66.4	6.1	100.0	0.0	32.0	25.0	7.0	67.3	0.8	0.0
1984	69.6	1.4	100.0	0.0	39.9	31.0	8.9	56.9	3.2	0.0
1985	70.3	5.8	100.0	0.0	42.4	33.2	9.3	55.6	2.0	0.0
1986	78.6	3.6	100.0	0.0	57.7	45.7	12.0	41.2	1.1	5.6
1987	79.2	3.4	100.0	0.0	61.9	45.6	16.3	37.9	0.2	11.0
1988	83.0	3.1	100.0	0.0	74.0	48.7	25.3	26.0	0.0	19.1
1989	83.2	3.2	100.0	0.0	83.3	59.0	24.3	16.4	0.2	22.9
1990	83.5	2.6	100.0	0.0	97.9	77.0	20.9	2.0	0.1	47.5
1991	84.3	3.1	100.0	0.0	99.5	75.9	23.6	0.2	0.3	51.6
1992	85.1	3.4	100.0	0.0	99.9	86.4	13.5	0.1	0.1	55.0
1993	89.3	2.3	100.0	0.0	100.0	86.3	13.7	0.0	0.0	53.0
1994	88.7	1.0	99.8	0.0	100.0	90.2	9.8	0.0	0.0	59.3
1995	86.1	2.2	100.0	0.0	100.0	97.1	2.9	0.0	0.0	66.5
1996	86.6	3.1	100.0	0.0	99.6	96.3	3.3	0.0	0.4	66.6
1997	86.4	3.4	100.0	0.0	99.7	98.1	1.6	0.0	0.3	65.9
1998	83.8	4.5	100.0	0.0	98.8	97.6	1.2	0.0	1.2	65.7
1999	83.5	4.7	100.0	0.0	99.0	98.1	0.9	0.0	1.0	61.8
2000	78.9	4.3	100.0	0.0	98.4	97.9	0.5	0.0	1.6	61.9
2001	82.2	4.6	100.0	0.0	98.4	98.4	0.0	0.0	1.6	64.1
2002	78.7	9.1	100.0	0.0	98.2	98.2	0.0	0.0	1.8	70.4
2003	81.6	4.7	100.0	0.0	97.8	97.8	0.0	0.0	2.2	75.1
2004	80.5	5.2	100.0	0.0	98.3	98.3	0.0	0.0	1.7	80.1

# Appendix J

Table J-5

Characteristics of 1978 to 2004 M-6 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1989	4	0.000	22.7	16.4	25.4	19.5	3500	50.0	350	240	7.7	154	0.685	0.0685	34.1	975	1706
1990	7	0.001	22.3	16.1	24.7	19.1	3503	50.0	350	302	6.6	177	0.864	0.0861	33.5	955	1673
1991	6	0.000	21.9	15.8	24.4	18.8	3583	53.3	346	296	6.8	173	0.856	0.0826	33.8	994	1793
1992	6	0.001	22.7	16.5	24.8	19.4	3531	52.8	338	303	6.5	177	0.914	0.0856	34.4	1025	1814
1993	14	0.001	22.8	16.6	24.8	19.5	3540	73.4	332	284	6.9	169	0.896	0.0800	34.7	1444	2563
1994	27	0.002	23.0	16.6	25.5	19.7	3607	79.5	324	276	7.2	165	0.932	0.0763	35.7	1585	2870
1995	35	0.002	22.6	16.4	25.3	19.4	3637	79.2	310	269	7.3	162	0.933	0.0737	35.5	1557	2838
1996	27	0.002	21.9	15.8	24.7	18.8	3623	73.2	323	291	6.9	170	0.954	0.0805	34.4	1402	2568
1997	26	0.002	22.3	16.1	24.8	19.2	3675	79.4	309	320	6.5	180	1.090	0.0872	35.9	1574	2922
1998	23	0.002	23.4	17.0	25.8	20.1	3654	76.5	327	319	6.4	180	1.001	0.0875	37.2	1567	2891
1999	43	0.003	24.2	17.7	26.2	20.7	3537	72.6	294	300	6.7	175	1.075	0.0843	37.0	1518	2714
2000	78	0.005	24.6	18.2	26.1	21.1	3405	75.5	240	271	7.0	167	1.284	0.0789	36.0	1631	2771
2001	105	0.007	24.4	18.1	25.6	20.9	3511	73.5	210	274	7.2	166	1.450	0.0777	36.9	1537	2745
2002	148	0.009	26.1	19.5	27.2	22.4	3361	82.8	202	249	7.5	159	1.374	0.0732	37.9	1904	3176
2003	198	0.013	26.5	19.9	27.3	22.7	3378	79.3	205	249	7.6	159	1.377	0.0727	38.7	1843	3086
2004	295	0.018	26.3	19.7	27.3	22.5	3458	90.1	183	245	7.9	156	1.393	0.0701	39.3	2080	3572

Percent of M-6 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		CARB	DSL	FOUR VALVE
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI			
1989	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	37.2
1991	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	30.8
1992	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	16.2
1993	6.4	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	11.4
1994	12.1	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	20.3
1995	6.0	1.5	100.0	0.0	100.0	100.0	0.0	0.0	0.0	15.9
1996	0.0	13.3	100.0	0.0	100.0	100.0	0.0	0.0	0.0	2.6
1997	0.0	10.6	100.0	0.0	100.0	100.0	0.0	0.0	0.0	16.8
1998	0.0	2.8	100.0	0.0	100.0	100.0	0.0	0.0	0.0	12.9
1999	7.0	3.7	100.0	0.0	100.0	100.0	0.0	0.0	0.0	36.7
2000	15.1	10.2	100.0	0.0	100.0	100.0	0.0	0.0	0.0	52.2
2001	2.8	34.7	100.0	0.0	100.0	100.0	0.0	0.0	0.0	40.1
2002	37.4	11.4	100.0	0.0	100.0	100.0	0.0	0.0	0.0	62.7
2003	42.2	7.4	100.0	0.0	100.0	100.0	0.0	0.0	0.0	74.3
2004	41.1	11.5	100.0	0.0	100.0	100.0	0.0	0.0	0.0	68.2

# Appendix J

Table J-6

Characteristics of 1978 to 2004 A-3 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	8125	0.562	18.6	14.6	17.8	15.9	3818	114.4	283	133	13.6	113	0.493	0.0347	30.4	1845	3490
1979	7462	0.538	19.0	15.0	17.8	16.2	3729	115.0	269	129	13.7	112	0.501	0.0342	30.2	1882	3488
1980	4814	0.426	22.3	17.6	21.2	19.0	3215	107.8	203	106	14.1	108	0.562	0.0327	30.6	2075	3316
1981	3027	0.287	24.4	19.2	22.9	20.7	2958	106.5	165	95	14.4	106	0.621	0.0321	30.7	2238	3279
1982	1251	0.129	27.9	22.3	25.8	23.7	2679	101.1	124	84	14.8	104	0.684	0.0310	31.9	2434	3239
1983	1158	0.112	28.2	22.6	25.9	24.0	2749	106.1	130	85	14.8	104	0.670	0.0308	33.1	2588	3522
1984	1667	0.119	28.3	22.4	26.5	24.1	2741	106.0	128	88	14.4	105	0.691	0.0320	33.1	2578	3510
1985	1798	0.124	28.8	22.8	26.9	24.5	2764	105.3	129	99	13.3	109	0.769	0.0355	34.0	2614	3583
1986	1742	0.113	28.8	22.8	26.9	24.5	2778	105.5	129	97	13.6	109	0.756	0.0347	34.1	2619	3599
1987	1498	0.101	28.2	22.2	26.8	24.1	2763	105.1	130	97	13.6	109	0.752	0.0349	33.4	2559	3506
1988	892	0.058	28.7	22.7	27.1	24.5	2792	103.4	125	98	13.5	109	0.795	0.0350	34.3	2572	3545
1989	815	0.056	28.8	22.8	27.0	24.5	2818	102.8	126	97	13.7	108	0.774	0.0341	34.6	2569	3559
1990	535	0.042	28.8	22.8	27.0	24.5	2869	101.6	128	98	13.7	108	0.774	0.0340	35.3	2533	3591
1991	368	0.029	27.3	21.5	25.7	23.2	2834	99.5	124	96	13.9	107	0.784	0.0333	33.2	2372	3296
1992	394	0.032	29.3	23.0	27.8	25.0	2799	99.2	126	98	13.7	108	0.797	0.0345	35.1	2528	3478
1993	351	0.027	29.5	23.2	28.0	25.1	2819	100.6	128	96	13.8	108	0.767	0.0338	35.6	2568	3577
1994	267	0.019	30.6	24.1	29.0	26.1	2735	100.2	120	91	14.0	106	0.784	0.0330	35.8	2677	3587
1995	67	0.004	36.8	29.6	33.6	31.3	2358	99.8	84	79	13.8	105	0.945	0.0335	36.8	3123	3679
1996	71	0.005	36.7	29.4	33.6	31.2	2322	99.9	94	77	14.0	104	0.818	0.0329	36.2	3116	3615
1997	49	0.003	37.2	29.9	34.1	31.6	2250	90.5	79	70	14.6	102	0.886	0.0311	35.6	2861	3219
1998	21	0.001	37.2	29.8	34.2	31.7	2274	89.9	80	80	13.2	106	0.998	0.0350	36.0	2851	3236
1999	18	0.001	36.8	29.4	34.0	31.3	2312	88.3	82	81	13.2	107	0.995	0.0350	36.1	2768	3186
2000	27	0.002	36.8	29.4	33.9	31.3	2318	88.4	82	80	13.3	106	0.988	0.0348	36.1	2770	3198
2001	21	0.001	36.3	28.8	33.9	30.9	2390	88.8	86	83	13.3	107	0.975	0.0348	36.7	2750	3270

Percent of A-3 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1978	3.9	0.0	0.0	0.0	3.2	3.2	0.0	96.3	0.5	0.0
1979	5.6	0.0	0.0	0.0	3.0	3.0	0.0	95.1	1.9	0.0
1980	29.3	0.8	0.0	0.0	4.8	3.9	0.9	92.9	2.3	0.0
1981	56.9	0.0	0.0	0.0	11.0	5.9	5.1	87.1	1.8	0.0
1982	76.5	0.0	0.0	0.0	9.0	8.9	0.1	89.3	1.8	0.0
1983	76.1	5.6	0.0	0.0	14.1	7.0	7.1	84.9	1.0	0.0
1984	94.0	0.4	0.0	0.0	25.3	13.1	12.2	74.3	0.4	0.0
1985	92.8	1.1	0.0	0.0	52.9	18.0	34.9	47.0	0.1	0.0
1986	92.0	1.8	0.0	0.0	65.3	22.6	42.7	34.7	0.0	0.4
1987	96.0	2.4	0.2	0.0	79.0	22.2	56.9	21.0	0.0	0.6
1988	96.9	1.7	0.0	0.0	91.6	54.3	37.3	8.4	0.0	1.1
1989	95.9	2.8	0.0	0.0	95.1	64.8	30.3	4.9	0.0	2.3
1990	97.9	1.0	0.0	0.0	100.0	73.6	26.4	0.0	0.0	1.1
1991	97.8	1.2	0.0	0.0	100.0	79.6	20.4	0.0	0.0	1.9
1992	97.8	1.6	0.0	0.0	100.0	77.4	22.6	0.0	0.0	9.3
1993	99.4	0.6	0.0	0.0	100.0	85.4	14.6	0.0	0.0	1.3
1994	99.8	0.2	0.0	0.0	100.0	81.1	18.9	0.0	0.0	0.7
1995	100.0	0.0	0.0	0.0	100.0	43.4	56.6	0.0	0.0	0.0
1996	100.0	0.0	0.0	0.0	100.0	30.8	69.2	0.0	0.0	0.0
1997	100.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1998	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	98.1
1999	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	6.1
2000	12.2	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	6.7
2001	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	14.6

# Appendix J

Table J-7

Characteristics of 1978 to 2004 A-4 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	42	0.003	22.0	17.7	20.0	18.7	3589	102.4	167	105	15.8	105	0.632	0.0296	34.4	1959	3515
1979	57	0.004	22.8	18.4	20.7	19.4	3567	100.6	168	102	16.2	104	0.609	0.0290	35.6	2004	3630
1980	57	0.005	24.5	20.2	21.6	20.8	3477	101.0	169	95	16.6	103	0.568	0.0278	36.8	2129	3763
1981	135	0.013	26.0	20.9	23.9	22.1	3277	94.6	165	105	14.6	107	0.635	0.0321	36.7	2136	3504
1982	230	0.024	24.4	19.2	23.1	20.8	3456	107.6	194	114	14.0	109	0.623	0.0331	36.3	2256	3912
1983	183	0.018	27.1	21.7	24.8	23.0	3325	99.1	156	112	13.9	109	0.723	0.0337	38.7	2331	3871
1984	206	0.015	25.4	20.1	23.8	21.6	3376	99.5	166	127	12.8	115	0.775	0.0376	37.1	2205	3715
1985	200	0.014	24.7	19.8	22.7	21.0	3408	100.5	168	129	12.6	115	0.790	0.0379	36.3	2165	3661
1986	154	0.010	22.6	18.0	21.1	19.3	3514	105.6	191	158	11.3	124	0.852	0.0442	34.3	2113	3661
1987	181	0.012	23.1	18.3	21.6	19.6	3519	105.9	190	161	11.0	125	0.871	0.0452	35.2	2160	3762
1988	142	0.009	22.5	17.7	21.2	19.1	3504	104.6	188	161	11.0	125	0.886	0.0454	33.8	2062	3562
1989	147	0.010	22.4	17.6	21.4	19.1	3546	106.6	184	163	10.9	125	0.912	0.0454	34.1	2079	3651
1990	117	0.009	22.7	17.7	21.7	19.3	3652	110.1	175	160	11.5	123	0.926	0.0433	35.5	2158	3905
1991	131	0.010	23.1	17.9	22.4	19.7	3662	106.2	177	167	11.1	126	0.970	0.0451	36.3	2133	3864
1992	100	0.008	22.9	17.7	22.5	19.5	3757	107.3	182	181	10.9	129	0.985	0.0471	37.0	2144	3969
1993	83	0.006	23.6	18.2	23.2	20.1	3853	109.5	186	186	10.9	130	0.990	0.0472	38.9	2235	4261
1994	64	0.005	23.7	18.1	23.6	20.2	3934	105.9	200	219	9.4	140	1.102	0.0548	39.8	2173	4226
1995	91	0.006	24.8	18.9	24.7	21.1	4003	104.0	202	216	9.7	138	1.076	0.0534	42.8	2257	4468
1996	44	0.003	27.1	20.6	27.3	23.1	3720	104.4	171	172	10.9	127	1.007	0.0459	43.5	2443	4554
1997	1	0.000	22.6	16.7	23.8	19.3	3500	59.9	220	270	7.0	165	1.226	0.0766	33.8	1157	2024
1998	1	0.000	24.8	18.4	26.1	21.2	3351	82.6	174	202	9.4	142	1.128	0.0552	35.8	1842	3023
1999	28	0.002	28.2	20.9	29.7	24.2	3192	109.1	122	125	12.1	116	1.023	0.0391	38.5	2640	4205
2000	70	0.004	28.1	20.8	29.8	24.1	3104	107.6	119	122	12.1	116	1.031	0.0394	37.3	2597	4025
2001	48	0.003	28.0	20.7	29.7	24.0	3117	107.8	119	121	12.2	115	1.027	0.0389	37.2	2584	4021
2002	15	0.001	27.7	20.6	29.0	23.7	3095	107.7	118	121	12.1	115	1.028	0.0391	36.6	2557	3949
2004	89	0.005	31.3	23.8	31.6	26.8	2976	96.4	114	106	13.0	111	0.958	0.0359	39.8	2577	3836

Percent of A-4 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI		CARB	DSL	FOUR VALVE
1978	0.0	0.0	0.0	0.0	15.1	15.1	0.0	36.6	48.3	0.0
1979	0.0	0.0	0.0	0.0	23.5	23.5	0.0	20.3	56.1	0.0
1980	0.0	0.0	0.0	0.0	39.8	39.8	0.0	0.0	60.2	0.0
1981	0.0	0.0	0.0	0.0	32.1	32.1	0.0	41.4	26.5	0.0
1982	0.0	0.0	0.0	0.0	57.1	32.7	24.5	23.5	19.4	0.0
1983	10.1	4.2	0.0	0.0	59.5	59.5	0.0	13.0	27.5	0.0
1984	0.0	0.0	0.0	0.0	80.0	80.0	0.0	0.0	20.0	0.0
1985	0.0	0.0	0.0	0.0	82.3	82.3	0.0	0.0	17.7	0.0
1986	0.0	0.0	0.0	0.0	95.8	95.8	0.0	0.0	4.2	0.5
1987	0.0	0.0	0.0	0.0	87.1	87.1	0.0	0.0	12.9	1.1
1988	5.9	0.0	0.0	0.0	99.5	99.5	0.0	0.0	0.5	0.8
1989	4.0	0.0	0.0	0.0	99.8	99.8	0.0	0.0	0.2	3.1
1990	7.5	0.4	0.0	0.0	98.3	98.3	0.0	0.0	1.7	4.5
1991	11.3	5.1	0.0	0.0	95.4	95.4	0.0	0.0	4.6	13.8
1992	10.4	5.0	0.0	0.0	96.0	96.0	0.0	0.0	4.0	12.6
1993	10.8	0.9	0.0	0.0	100.0	100.0	0.0	0.0	0.0	62.8
1994	2.3	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	83.8
1995	0.0	0.0	0.0	0.0	93.6	93.6	0.0	0.0	6.4	98.8
1996	0.0	0.0	0.0	0.0	94.0	94.0	0.0	0.0	6.0	98.2
1997	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	46.7	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	46.6
1999	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	69.9

# Appendix J

Table J-8

Characteristics of 1978 to 2004 A-5 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1990	2	0.000	21.5	16.3	21.9	18.4	4000	50.0	181	228	9.0	143	1.259	0.0569	36.8	920	1841
1991	3	0.000	21.9	16.3	22.8	18.7	4000	50.0	181	228	9.0	143	1.260	0.0567	37.4	936	1872
1992	6	0.001	20.1	15.3	20.2	17.2	4372	104.8	191	228	9.6	138	1.192	0.0522	37.5	1774	3932
1993	6	0.000	19.7	15.0	19.7	16.8	4941	114.6	193	228	10.6	133	1.180	0.0460	41.5	1912	4754
1994	5	0.000	22.8	16.9	24.1	19.5	4853	102.1	195	217	10.9	130	1.112	0.0446	47.4	1987	4895
1995	13	0.001	23.1	17.2	24.4	19.8	4500	109.6	195	217	10.2	134	1.113	0.0481	44.5	2170	4882
1996	9	0.001	23.1	17.2	24.4	19.8	4500	105.4	195	217	10.2	134	1.113	0.0480	44.6	2087	4695
1997	1	0.000	22.4	16.6	23.9	19.2	3000	50.0	151	201	7.9	148	1.331	0.0669	28.8	960	1440
1998	1	0.000	22.4	16.6	23.9	19.2	3000	50.0	151	201	7.9	148	1.331	0.0669	28.8	960	1440
1999	6	0.000	22.5	16.5	24.4	19.3	3239	62.0	178	246	7.2	161	1.378	0.0751	31.3	1198	1971
2000	5	0.000	23.0	16.9	24.7	19.7	3292	59.9	187	254	7.1	163	1.358	0.0767	32.3	1177	1955
2001	6	0.000	22.6	16.5	24.3	19.3	3338	62.5	192	276	6.8	170	1.423	0.0818	32.3	1205	2027
2002	5	0.000	23.6	17.5	24.8	20.2	3327	61.4	197	273	6.8	169	1.380	0.0811	33.6	1243	2088

Percent of A-5 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1990	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1991	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1992	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1993	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1994	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1995	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1996	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1997	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1998	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	0.0	5.4	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	0.0	6.7	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	0.0	22.2	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	0.0	14.4	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0



# Appendix J

Table J-9

Characteristics of 1978 to 2004 A-6 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1998	0	0.000	13.3	9.9	14.0	11.4	3500	50.0	213	375	5.4	203	1.760	0.1060	20.0	570	998
1999	1	0.000	13.9	10.3	14.8	11.9	3500	50.0	215	382	5.3	205	1.773	0.1075	21.0	599	1048

Percent of A-6 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1998	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-10

Characteristics of 1978 to 2004 L-3 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1978	749	0.052	17.2	13.3	16.9	14.7	4133	114.8	311	146	13.3	114	0.471	0.0352	30.4	1701	3486
1979	869	0.063	18.5	14.4	17.9	15.8	3821	116.0	301	142	12.8	116	0.472	0.0373	30.2	1842	3507
1980	1339	0.118	19.9	15.4	19.4	17.0	3759	117.5	270	120	14.5	109	0.449	0.0321	32.2	2020	3826
1981	2261	0.214	22.4	17.4	21.8	19.1	3641	115.3	253	115	14.6	108	0.466	0.0316	35.1	2235	4086
1982	3031	0.311	24.4	18.7	24.0	20.8	3265	111.6	204	105	14.4	107	0.549	0.0322	34.2	2358	3838
1983	2832	0.275	24.4	18.8	24.0	20.8	3235	112.1	202	108	14.0	108	0.563	0.0331	33.9	2372	3803
1984	3927	0.280	25.5	19.6	25.1	21.7	3184	111.1	190	106	14.0	108	0.594	0.0332	34.7	2447	3858
1985	3203	0.222	26.8	20.6	26.5	22.9	3104	109.6	179	104	13.9	108	0.611	0.0333	35.6	2545	3913
1986	2990	0.195	27.7	21.3	27.2	23.6	3022	107.5	167	100	14.0	108	0.633	0.0330	35.8	2572	3855
1987	2679	0.180	29.1	22.5	28.4	24.8	2925	107.0	151	99	13.9	108	0.684	0.0335	36.4	2680	3896
1988	3027	0.198	29.8	23.1	29.1	25.4	2866	105.8	140	101	13.5	109	0.736	0.0350	36.5	2710	3870
1989	2467	0.171	30.0	23.1	29.4	25.6	2865	104.8	138	105	13.1	111	0.775	0.0365	36.7	2690	3848
1990	1980	0.157	29.7	22.8	29.3	25.3	2913	104.1	139	111	12.7	113	0.814	0.0378	37.0	2647	3850
1991	1765	0.140	29.1	22.3	28.9	24.9	2918	104.1	144	114	12.4	114	0.806	0.0388	36.3	2595	3783
1992	1634	0.134	28.5	21.7	28.6	24.3	3003	104.0	151	123	11.9	117	0.833	0.0408	36.6	2541	3807
1993	1421	0.108	28.4	21.6	28.7	24.3	3020	105.0	158	125	11.8	118	0.808	0.0414	36.7	2560	3858
1994	899	0.064	30.2	23.2	29.7	25.8	2901	102.2	132	110	12.5	113	0.852	0.0380	37.4	2639	3824
1995	893	0.059	31.3	24.1	30.7	26.7	2843	103.1	124	121	11.5	118	0.982	0.0426	38.0	2758	3917
1996	671	0.051	31.6	24.6	30.7	27.0	2826	101.6	120	122	11.5	119	1.020	0.0431	38.1	2745	3875
1997	611	0.042	31.3	24.5	30.0	26.7	2817	99.8	116	114	12.0	115	0.988	0.0405	37.6	2664	3752
1998	438	0.030	31.3	24.0	30.8	26.7	2842	100.8	123	125	11.1	120	1.016	0.0440	38.0	2696	3824
1999	359	0.024	31.6	24.5	30.6	27.0	2853	100.2	122	122	11.3	119	1.010	0.0429	38.6	2715	3862
2000	505	0.030	31.2	24.2	30.2	26.6	2923	101.4	124	126	11.2	119	1.025	0.0433	38.9	2702	3944
2001	289	0.019	32.7	25.5	31.4	27.9	2909	102.0	120	127	11.1	120	1.065	0.0437	40.7	2859	4150
2002	70	0.004	36.0	28.6	33.4	30.6	2750	100.1	109	125	10.7	121	1.142	0.0454	42.1	3063	4211

Percent of L-3 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1978	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	2.0	0.0	0.0	100.0	0.0	0.0	0.0	91.7	8.3	0.0
1981	0.0	0.7	0.0	100.0	0.3	0.0	0.3	87.8	11.9	0.0
1982	33.0	0.7	0.0	100.0	17.7	2.0	15.7	77.1	5.2	0.0
1983	41.4	1.3	0.0	100.0	22.8	1.0	21.8	75.8	1.4	0.0
1984	51.2	1.0	0.0	100.0	37.5	6.5	31.0	61.8	0.7	0.0
1985	59.5	1.3	0.0	100.0	56.2	7.0	49.2	43.7	0.1	0.0
1986	72.1	0.0	0.0	100.0	71.5	9.7	61.8	28.5	0.0	0.0
1987	88.4	0.0	0.0	100.0	70.6	14.4	56.2	29.4	0.0	1.0
1988	97.7	0.0	0.0	100.0	84.1	25.3	58.8	15.9	0.0	6.4
1989	99.2	0.1	0.0	100.0	88.1	27.8	60.3	11.9	0.0	11.5
1990	99.9	0.1	0.0	100.0	98.1	42.1	56.0	1.9	0.0	19.4
1991	100.0	0.0	0.0	100.0	100.0	43.2	56.8	0.0	0.0	14.1
1992	100.0	0.0	0.0	100.0	100.0	79.2	20.8	0.0	0.0	16.9
1993	100.0	0.0	0.0	100.0	100.0	80.4	19.6	0.0	0.0	6.9
1994	100.0	0.0	0.0	100.0	100.0	78.3	21.7	0.0	0.0	13.3
1995	100.0	0.0	0.0	100.0	100.0	96.9	3.1	0.0	0.0	59.3
1996	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	52.9
1997	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	60.8
1998	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	62.0
1999	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	47.3
2000	94.5	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	57.4
2001	87.2	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	67.7
2002	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	71.1

# Appendix J

Table J-11

Characteristics of 1978 to 2004 L-4 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1980	219	0.019	19.3	14.5	20.0	16.5	3975	128.1	321	140	13.1	114	0.438	0.0355	32.8	2114	4220
1981	650	0.062	19.8	14.8	20.5	16.9	4001	132.8	297	140	13.3	114	0.471	0.0350	33.9	2247	4508
1982	986	0.101	20.2	15.1	20.9	17.3	4016	128.3	288	141	13.4	114	0.495	0.0352	34.9	2225	4495
1983	1708	0.166	21.4	16.0	22.0	18.3	3823	123.3	267	134	13.3	113	0.523	0.0352	35.1	2269	4333
1984	2295	0.164	21.9	16.4	22.5	18.7	3736	118.3	261	134	13.1	114	0.542	0.0359	35.1	2234	4173
1985	3127	0.216	23.1	17.3	23.9	19.8	3633	119.4	247	137	12.7	116	0.583	0.0377	36.0	2382	4319
1986	3400	0.221	25.0	18.6	26.1	21.4	3478	117.2	223	138	12.2	117	0.652	0.0395	37.2	2521	4378
1987	3702	0.249	25.3	18.9	26.3	21.6	3445	115.1	212	138	12.1	118	0.693	0.0399	37.3	2504	4305
1988	4069	0.266	25.8	19.2	26.8	22.0	3464	115.4	210	141	11.9	119	0.714	0.0405	38.2	2559	4429
1989	4475	0.310	25.7	19.2	26.8	22.0	3442	114.9	202	141	11.9	119	0.741	0.0410	37.9	2538	4368
1990	4441	0.352	25.8	19.3	26.9	22.1	3466	113.4	193	144	11.7	120	0.790	0.0416	38.3	2518	4356
1991	4503	0.358	26.4	19.7	27.3	22.5	3407	112.9	189	148	11.4	122	0.823	0.0430	38.4	2566	4352
1992	4559	0.375	26.1	19.4	27.3	22.3	3491	114.5	195	156	11.2	124	0.841	0.0442	39.0	2570	4473
1993	5077	0.384	26.9	20.1	28.0	23.0	3407	113.3	184	150	11.3	122	0.853	0.0436	39.3	2634	4461
1994	5748	0.411	26.7	19.9	27.9	22.9	3420	112.2	185	154	11.1	124	0.865	0.0446	39.1	2584	4395
1995	6772	0.447	27.2	20.2	28.5	23.2	3397	111.9	181	161	10.7	126	0.919	0.0468	39.5	2624	4426
1996	5895	0.449	27.2	20.2	28.5	23.3	3408	111.9	178	162	10.6	127	0.937	0.0471	39.6	2618	4441
1997	6401	0.442	27.6	20.5	28.9	23.6	3371	111.5	174	163	10.6	127	0.957	0.0477	39.8	2651	4444
1998	6267	0.433	27.9	20.8	29.2	23.9	3368	110.9	170	162	10.6	127	0.975	0.0475	40.4	2673	4477
1999	6688	0.439	27.8	20.7	28.9	23.7	3417	111.4	171	165	10.5	128	0.986	0.0479	40.6	2665	4533
2000	6877	0.415	27.9	20.9	29.0	23.9	3416	104.6	170	169	10.4	129	1.011	0.0490	40.8	2528	4289
2001	6239	0.400	28.4	21.3	29.4	24.3	3397	111.8	168	166	10.4	128	1.005	0.0483	41.4	2745	4634
2002	6251	0.388	28.8	21.7	29.5	24.6	3376	111.9	167	168	10.3	129	1.026	0.0492	41.7	2782	4673
2003	5165	0.331	29.3	22.0	30.0	25.0	3396	111.9	174	168	10.3	129	1.021	0.0490	42.7	2828	4778
2004	5362	0.323	29.1	21.8	30.0	24.9	3424	113.9	172	173	10.1	131	1.032	0.0501	42.7	2864	4872

Percent of L-4 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1980	0.0	0.0	0.0	100.0	8.9	0.0	8.9	91.1	0.0	0.0
1981	0.0	0.0	0.0	100.0	10.4	0.0	10.4	89.6	0.0	0.0
1982	14.8	0.0	0.0	100.0	22.0	2.3	19.7	73.4	4.6	0.0
1983	17.5	0.0	0.0	100.0	43.6	6.6	37.0	54.5	1.9	0.0
1984	18.2	0.0	0.0	100.0	50.2	14.5	35.8	49.0	0.8	0.0
1985	42.4	1.3	0.0	100.0	59.9	28.5	31.5	39.6	0.5	0.0
1986	57.3	0.0	0.0	100.0	69.0	62.3	6.7	30.9	0.1	1.2
1987	62.2	0.0	0.0	100.0	81.2	69.6	11.6	18.8	0.0	8.2
1988	66.4	0.1	0.0	100.0	89.6	79.9	9.7	10.4	0.0	12.0
1989	72.0	0.3	0.0	100.0	95.0	84.2	10.8	5.0	0.0	12.2
1990	78.2	0.8	0.0	100.0	99.2	95.2	4.0	0.8	0.0	24.8
1991	76.9	1.2	0.0	100.0	100.0	91.9	8.1	0.0	0.0	27.6
1992	72.5	0.7	0.0	100.0	100.0	94.8	5.2	0.0	0.0	29.4
1993	80.2	1.3	0.0	100.0	100.0	96.3	3.7	0.0	0.0	36.5
1994	81.8	0.4	0.0	100.0	100.0	99.0	1.0	0.0	0.0	39.6
1995	80.5	1.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	47.6
1996	86.3	1.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	54.9
1997	87.5	1.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	55.3
1998	90.2	1.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	59.6
1999	91.3	1.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	60.6
2000	91.3	1.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	62.1
2001	92.4	1.4	0.0	100.0	99.9	99.9	0.0	0.0	0.1	60.8
2002	94.0	1.5	0.0	100.0	99.7	99.7	0.0	0.0	0.3	63.3
2003	91.8	0.9	0.0	100.0	99.6	99.6	0.0	0.0	0.4	64.5
2004	90.3	2.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	63.5

# Appendix J

Table J-12

Characteristics of 1978 to 2004 L-5 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1993	9	0.001	20.7	15.3	22.0	17.7	4249	116.2	243	280	8.0	156	1.152	0.0660	37.6	2058	4373
1994	22	0.002	21.8	16.0	23.5	18.7	4011	110.0	222	258	8.2	152	1.164	0.0642	37.5	2057	4123
1995	29	0.002	22.5	16.6	24.2	19.3	4301	110.8	233	271	8.3	152	1.167	0.0629	41.5	2139	4608
1996	26	0.002	22.1	16.3	23.4	18.9	4309	106.7	245	258	8.8	148	1.054	0.0590	40.6	2029	4358
1997	150	0.010	24.5	18.2	25.7	21.0	4027	107.3	217	236	9.0	144	1.097	0.0581	42.4	2276	4559
1998	261	0.018	25.3	18.9	26.2	21.6	3923	105.7	202	233	8.9	145	1.165	0.0589	42.6	2306	4512
1999	363	0.024	25.4	18.8	26.7	21.7	3826	106.2	187	223	9.1	143	1.214	0.0577	41.8	2327	4439
2000	622	0.038	24.7	18.3	25.9	21.1	3822	109.7	195	222	9.0	143	1.151	0.0576	40.5	2335	4441
2001	828	0.053	24.9	18.6	25.8	21.3	3792	108.3	185	220	9.0	143	1.210	0.0578	40.5	2317	4393
2002	949	0.059	25.5	19.1	26.5	21.8	3788	105.6	184	218	9.0	142	1.217	0.0574	41.4	2328	4389
2003	1568	0.100	27.0	20.1	28.1	23.1	3659	106.8	174	210	9.1	141	1.223	0.0572	42.5	2501	4547
2004	1680	0.101	26.8	20.0	27.9	22.9	3720	108.0	177	212	9.2	141	1.212	0.0568	42.9	2512	4649

Percent of L-5 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL		METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1993	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1994	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1995	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	98.0
1996	16.2	11.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	67.8
1997	2.0	5.4	0.0	100.0	98.2	98.2	0.0	0.0	1.8	93.7
1998	7.5	10.6	0.0	100.0	98.7	98.7	0.0	0.0	1.3	61.6
1999	17.3	11.7	0.0	100.0	98.7	98.7	0.0	0.0	1.3	44.2
2000	26.8	6.6	0.0	100.0	98.9	98.9	0.0	0.0	1.1	80.6
2001	31.8	13.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	65.3
2002	38.0	14.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	68.4
2003	55.8	10.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	76.8
2004	60.4	12.4	0.0	100.0	99.6	99.6	0.0	0.0	0.4	81.1

# Appendix J

Table J-13

Characteristics of 1978 to 2004 L-6 TRANSMISSION Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
2000	0	0.000	14.5	10.5	16.0	12.4	3500	50.0	219	394	5.2	210	1.797	0.1114	21.7	620	1086
2001	0	0.000	14.5	10.5	16.0	12.4	3500	50.0	219	394	5.2	210	1.797	0.1109	21.7	620	1086
2002	23	0.001	22.5	16.6	24.1	19.3	4351	113.6	257	333	7.1	172	1.310	0.0771	42.7	2251	4959
2003	72	0.005	24.7	18.4	26.1	21.2	3906	94.5	203	256	8.9	152	1.252	0.0643	41.7	2022	4021
2004	209	0.013	25.0	18.4	26.6	21.4	3960	107.5	212	262	8.4	154	1.236	0.0653	42.5	2310	4598

Percent of L-6 TRANSMISSION Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	98.0
2003	30.9	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	68.4
2004	15.0	7.1	0.0	100.0	99.5	99.5	0.0	0.0	0.5	77.6

# Appendix J

Table J-14 Characteristics of 1978 to 2004 OTHER TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1984	0	0.000	32.4	25.9	30.0	27.6	2750	122	88	14.3	105	0.667	0.0000	37.9
1987	2	0.000	18.4	15.6	15.5	15.5	4000	129	90	18.3	97	0.698	0.0224	31.1
1989	0	0.000	18.6	15.7	15.7	15.7	4500	129	90	20.4	95	0.696	0.0157	35.3
1990	0	0.000	18.5	15.7	15.6	15.6	4500	129	90	20.8	95	0.697	0.0168	35.2

Percent of OTHER TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1984	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	0.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1989	0.0	100.0	58.9	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-15 Characteristics of 1978 to 2004 M-3 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	40	0.003	17.3	14.1	15.7	14.8	4248	264	129	14.6	108	0.489	0.0298	31.6
1980	29	0.003	19.0	15.1	17.7	16.1	4172	275	126	14.6	108	0.464	0.0301	33.7
1981	20	0.002	19.9	15.9	18.4	16.9	4166	274	125	14.7	108	0.460	0.0294	35.3
1982	12	0.001	20.1	16.1	18.4	17.1	4177	276	117	15.4	105	0.427	0.0276	35.6
1983	11	0.001	19.9	15.9	18.4	17.0	4227	279	118	15.5	105	0.423	0.0269	35.8
1984	14	0.001	20.7	16.6	19.0	17.6	4096	285	118	15.2	106	0.414	0.0281	36.1
1985	7	0.000	20.8	16.8	18.7	17.6	4034	287	132	13.8	111	0.464	0.0320	35.6
1986	5	0.000	20.9	17.0	18.7	17.7	4023	281	136	13.5	112	0.486	0.0322	35.7
1987	1	0.000	20.6	16.6	18.8	17.5	4069	266	161	11.8	120	0.602	0.0364	35.6

Percent of M-3 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			DSL	FOUR VALVE
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB		
1979	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	0.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0

# Appendix J

Table J-16 Characteristics of 1978 to 2004 M-4 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	31	0.002	15.0	12.0	13.7	12.7	4224	272	125	15.7	107	0.470	0.0285	27.2
1980	33	0.003	19.3	15.1	18.6	16.5	3938	207	94	18.1	99	0.476	0.0232	32.5
1981	34	0.003	19.5	15.5	18.2	16.6	4048	230	99	17.7	100	0.451	0.0237	33.8
1982	36	0.004	21.1	16.8	19.5	17.9	3927	208	92	18.8	98	0.463	0.0227	35.8
1983	34	0.003	20.1	15.8	19.1	17.1	3953	217	98	17.6	100	0.472	0.0238	34.0
1984	50	0.004	21.3	16.7	20.1	18.1	3774	196	100	16.4	102	0.559	0.0260	34.4
1985	31	0.002	22.5	17.9	20.9	19.2	3751	180	98	16.6	101	0.599	0.0256	36.1
1986	16	0.001	21.2	16.8	19.7	18.0	3799	191	102	16.1	102	0.581	0.0261	34.5
1987	13	0.001	20.0	15.9	18.5	17.0	3903	190	107	16.1	103	0.600	0.0263	33.2
1988	3	0.000	20.6	16.6	18.7	17.5	3885	172	111	15.8	105	0.664	0.0268	34.1
1989	3	0.000	21.5	17.5	19.2	18.3	4050	168	107	16.8	102	0.660	0.0249	37.0
1990	3	0.000	21.8	18.0	19.1	18.5	4000	129	90	18.9	97	0.697	0.0224	37.1
1991	0	0.000	18.5	15.7	15.7	15.7	4311	129	90	19.6	96	0.697	0.0186	33.8

Percent of M-4 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1979	0.0	0.0	100.0	0.0	22.1	0.0	0.0	77.9	0.0	0.0
1980	0.0	0.0	100.0	0.0	38.7	0.0	0.0	61.3	0.0	0.0
1981	2.4	0.0	100.0	0.0	27.1	0.0	0.0	72.9	0.0	0.0
1982	0.0	0.0	100.0	0.0	20.7	0.0	0.0	63.8	15.6	0.0
1983	0.3	0.0	100.0	0.0	30.1	0.0	0.0	69.2	0.6	0.0
1984	17.7	0.0	100.0	0.0	31.6	0.0	0.0	68.0	0.4	0.0
1985	10.4	0.0	100.0	0.0	55.5	0.0	0.0	44.1	0.3	0.0
1986	6.5	0.0	100.0	0.0	55.4	40.4	15.0	44.2	0.4	0.0
1987	0.0	0.0	100.0	0.0	82.5	76.2	6.3	17.4	0.1	0.0
1988	0.0	0.0	100.0	0.0	99.4	70.3	29.1	0.0	0.6	0.0
1989	0.0	0.0	100.0	0.0	98.8	73.7	25.1	0.0	1.2	0.0
1990	0.0	6.6	6.6	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1991	0.0	100.0	62.2	0.0	100.0	100.0	0.0	0.0	0.0	0.0



# Appendix J

Table J-17

Characteristics of 1978 to 2004 M-5 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1983	0	0.000	33.9	29.8	27.3	28.6	3198	97	49	24.7	87	0.502	0.0145	45.5
1984	41	0.003	27.8	21.6	26.7	23.7	3370	129	89	16.1	101	0.688	0.0263	39.9
1985	47	0.003	27.4	21.3	26.5	23.3	3301	128	95	15.1	104	0.743	0.0288	38.5
1986	68	0.004	26.0	20.2	25.0	22.1	3377	143	100	14.8	105	0.708	0.0298	37.4
1987	58	0.004	25.5	19.7	24.9	21.8	3408	147	108	14.3	107	0.737	0.0312	37.2
1988	39	0.003	24.6	18.8	24.6	21.0	3607	167	116	14.1	109	0.713	0.0317	38.1
1989	35	0.002	24.1	18.5	24.1	20.6	3673	170	120	13.9	109	0.724	0.0321	38.0
1990	19	0.002	25.2	19.4	24.9	21.5	3584	159	123	13.5	111	0.776	0.0336	38.8
1991	14	0.001	23.8	18.4	23.2	20.3	3719	146	117	14.4	108	0.802	0.0307	37.7
1992	19	0.002	26.3	20.2	25.7	22.4	3407	141	117	13.2	111	0.853	0.0336	38.1
1993	17	0.001	24.4	18.5	24.9	20.9	3723	156	118	14.2	108	0.762	0.0313	39.1
1994	7	0.000	25.9	19.7	26.0	22.1	3542	154	115	14.0	109	0.754	0.0315	39.2
1995	2	0.000	23.9	19.0	22.3	20.4	3942	138	119	14.7	109	0.872	0.0315	39.9
1996	0	0.000	28.3	22.3	26.7	24.1	3210	133	127	11.9	116	0.935	0.0161	38.7

Percent of M-5 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1983	24.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
1984	70.9	0.0	100.0	0.0	29.1	0.0	0.0	68.9	1.9
1985	61.6	6.3	100.0	0.0	32.1	0.0	0.0	67.9	0.0
1986	31.1	19.7	100.0	0.0	37.5	33.1	4.4	59.6	2.9
1987	29.3	24.5	100.0	0.0	60.2	47.5	12.7	39.8	0.0
1988	31.8	20.3	100.0	0.0	100.0	63.1	36.9	0.0	0.0
1989	32.2	15.7	100.0	0.0	100.0	68.7	31.3	0.0	0.0
1990	56.8	12.7	100.0	0.0	100.0	64.9	35.1	0.0	0.0
1991	6.4	35.6	100.0	0.0	100.0	99.0	1.0	0.0	0.0
1992	67.5	11.3	100.0	0.0	100.0	78.6	21.4	0.0	0.0
1993	66.5	0.6	100.0	0.0	100.0	66.0	34.0	0.0	7.8
1994	68.5	7.0	100.0	0.0	100.0	48.1	51.9	0.0	9.9
1995	67.2	32.8	100.0	0.0	100.0	100.0	0.0	0.0	59.0
1996	58.1	41.9	100.0	0.0	100.0	100.0	0.0	0.0	100.0

# Appendix J

Table J-18 Characteristics of 1978 to 2004 A-3 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	377	0.027	13.0	10.7	11.6	11.1	4625	334	148	14.5	112	0.445	0.0320	25.9
1980	85	0.007	15.2	12.2	13.9	12.9	4657	315	137	15.5	108	0.436	0.0289	30.3
1981	77	0.007	16.0	12.9	14.5	13.6	4511	309	130	15.6	107	0.424	0.0287	30.8
1982	119	0.012	15.6	12.6	14.2	13.3	4518	314	135	15.2	108	0.431	0.0296	30.1
1983	110	0.011	15.7	12.7	14.3	13.4	4399	316	133	15.1	109	0.424	0.0301	29.6
1984	263	0.019	17.8	14.2	16.4	15.1	3962	249	127	14.5	109	0.548	0.0317	30.6
1985	365	0.025	19.2	15.5	17.6	16.4	3827	218	121	14.7	108	0.593	0.0313	31.9
1986	328	0.021	21.0	16.8	19.4	17.9	3843	204	115	15.2	106	0.597	0.0298	34.6
1987	286	0.019	19.3	15.4	17.8	16.4	4098	239	136	14.1	111	0.593	0.0328	34.1
1988	199	0.013	19.4	15.6	17.7	16.5	4172	247	139	14.2	112	0.577	0.0327	34.9
1989	262	0.018	20.8	16.7	19.1	17.7	3899	208	131	14.1	111	0.667	0.0332	35.0
1990	53	0.004	18.7	15.2	16.7	15.9	4326	260	151	13.5	115	0.615	0.0350	34.4
1991	19	0.002	17.3	14.2	15.2	14.6	4608	276	142	14.9	110	0.527	0.0306	33.7
1992	23	0.002	16.4	13.3	14.7	13.9	4897	306	174	13.4	118	0.564	0.0357	34.3
1993	24	0.002	16.6	13.5	15.0	14.1	5074	303	160	14.7	113	0.526	0.0317	35.9
1994	29	0.002	16.4	13.2	14.9	13.9	4956	307	175	13.5	118	0.568	0.0358	34.6
1995	27	0.002	16.3	13.2	14.7	13.8	5030	305	168	14.1	115	0.549	0.0338	34.9
1996	23	0.002	15.9	12.7	14.5	13.5	5066	305	170	14.1	116	0.554	0.0342	34.2
1997	5	0.000	16.0	12.8	14.7	13.6	4500	318	215	10.3	133	0.676	0.0477	30.6

Percent of A-3 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	0.0	0.0	0.0	0.4	0.0	0.0	99.6	0.0	0.0
1980	0.0	0.0	0.0	0.0	3.2	0.0	0.0	96.8	0.0	0.0
1981	0.0	0.0	0.0	0.0	2.7	0.0	0.0	97.3	0.0	0.0
1982	0.0	0.0	0.0	0.0	1.4	0.0	0.0	98.6	0.0	0.0
1983	0.4	0.0	0.0	0.0	2.6	0.0	0.0	97.0	0.4	0.0
1984	39.7	0.0	0.0	0.0	2.1	0.0	0.0	97.5	0.5	0.0
1985	59.2	0.0	0.0	0.0	1.5	0.0	0.0	98.5	0.0	0.0
1986	66.3	0.0	0.0	0.0	0.9	0.9	0.0	99.1	0.0	0.0
1987	43.2	0.0	0.0	0.0	41.2	16.7	24.5	58.8	0.0	0.0
1988	38.1	0.0	0.0	0.0	98.7	29.9	68.8	1.3	0.0	0.0
1989	64.6	0.0	0.0	0.0	100.0	46.7	53.3	0.0	0.0	0.0
1990	16.3	6.7	0.0	0.0	100.0	70.3	29.7	0.0	0.0	0.0
1991	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1992	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	1.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1994	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1997	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-19 Characteristics of 1978 to 2004 A-4 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1990	6	0.000	14.5	11.4	13.7	12.4	4709	348	184	12.1	122	0.528	0.0379	29.1
1991	3	0.000	14.4	11.4	13.4	12.2	4639	344	182	12.1	122	0.527	0.0365	28.4
1992	1	0.000	13.6	10.7	12.8	11.5	4856	360	203	11.5	126	0.559	0.0372	28.0

Percent of A-4 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1990	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1991	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1992	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0

# Appendix J

Table J-20 Characteristics of 1978 to 2004 L-3 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<--- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>--- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	33	0.002	14.7	12.0	13.0	12.4	4227	301	136	14.4	111	0.452	0.0320	26.6
1980	94	0.008	16.6	13.3	15.3	14.1	4283	296	139	14.2	111	0.471	0.0322	30.2
1981	114	0.011	17.6	14.1	16.3	15.0	4307	285	137	14.5	111	0.482	0.0316	32.4
1982	142	0.015	17.9	14.4	16.5	15.2	4315	285	142	14.3	112	0.493	0.0325	32.9
1983	26	0.003	19.7	15.9	17.8	16.7	4000	225	95	18.1	99	0.422	0.0236	33.5
1984	101	0.007	18.4	14.6	17.0	15.6	4208	266	131	14.9	109	0.499	0.0309	32.9
1985	150	0.010	17.2	13.8	15.6	14.6	4369	285	149	13.7	114	0.531	0.0339	32.0
1986	183	0.012	17.5	14.1	16.0	14.9	4365	288	146	13.9	113	0.518	0.0333	32.6
1987	228	0.015	22.0	17.3	20.8	18.7	3773	207	137	13.0	115	0.702	0.0367	35.5
1988	367	0.024	22.7	17.5	22.2	19.4	3853	194	143	12.6	116	0.760	0.0373	37.4
1989	111	0.008	20.9	16.4	19.9	17.8	3871	215	138	13.1	114	0.682	0.0359	34.7
1990	308	0.024	23.3	18.2	22.4	19.9	3789	186	125	14.1	110	0.677	0.0331	37.8
1991	225	0.018	23.5	18.5	22.2	20.0	3892	183	125	14.4	109	0.687	0.0319	39.2
1992	258	0.021	24.0	18.8	22.9	20.4	3902	179	128	14.0	111	0.718	0.0328	40.1
1993	274	0.021	24.6	19.1	23.9	21.0	3632	179	132	13.0	114	0.737	0.0365	38.1
1994	236	0.017	23.5	18.4	22.4	20.0	3761	185	138	12.9	115	0.745	0.0368	37.7
1995	226	0.015	24.4	19.0	23.4	20.8	3647	184	136	12.8	115	0.737	0.0374	38.0
1996	243	0.018	23.7	18.5	22.9	20.2	4042	182	153	12.5	118	0.845	0.0378	41.1
1997	204	0.014	23.5	18.2	22.7	20.0	4047	183	149	12.8	116	0.822	0.0367	40.7
1998	113	0.008	24.1	18.6	23.7	20.6	4059	173	153	12.5	117	0.898	0.0376	42.1
1999	78	0.005	23.7	18.4	22.9	20.2	4111	168	155	12.5	118	0.953	0.0377	42.0
2000	76	0.005	24.1	18.7	23.5	20.6	4097	165	155	12.5	118	0.961	0.0377	42.7
2001	39	0.002	23.0	18.2	21.7	19.6	4136	172	156	12.5	118	0.940	0.0377	41.1
2002	17	0.001	21.5	16.9	20.2	18.3	4219	186	160	12.4	118	0.896	0.0378	39.2
2003	5	0.000	17.7	14.5	15.7	15.1	4512	239	175	12.2	121	0.732	0.0386	34.0

Percent of L-3 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1979	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	8.3	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	7.4	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	8.3	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	72.9	0.0	0.0	100.0	68.2	68.2	0.0	31.8	0.0	0.0
1988	87.8	0.0	0.0	100.0	100.0	87.8	12.2	0.0	0.0	0.0
1989	63.5	0.0	0.0	100.0	100.0	63.5	36.5	0.0	0.0	0.0
1990	90.1	0.0	0.0	100.0	100.0	30.6	69.4	0.0	0.0	0.0
1991	90.8	0.0	0.0	100.0	100.0	39.1	60.9	0.0	0.0	0.0
1992	94.0	0.0	0.0	100.0	100.0	63.0	37.0	0.0	0.0	0.0
1993	96.8	0.0	0.0	100.0	100.0	72.7	27.3	0.0	0.0	0.0
1994	86.0	0.0	0.0	100.0	100.0	72.7	27.3	0.0	0.0	0.0
1995	91.2	0.0	0.0	100.0	100.0	69.3	30.7	0.0	0.0	0.0
1996	90.2	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	12.9
1997	86.5	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	18.3
1998	88.4	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	43.6
1999	78.5	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	78.5
2000	81.2	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	81.2
2001	74.1	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	74.1
2002	58.1	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	58.1
2003	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-21 Characteristics of 1978 to 2004 L-4 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1981	0	0.000	15.9	12.7	14.7	13.5	4500	302	142	14.4	111	0.457	0.0286	30.5
1983	201	0.020	18.2	14.3	17.3	15.5	4569	306	151	14.0	113	0.495	0.0329	35.8
1984	207	0.015	19.0	14.8	18.3	16.2	4363	276	136	14.8	110	0.517	0.0309	35.7
1985	255	0.018	19.9	15.4	19.2	16.9	4106	259	138	13.9	112	0.555	0.0336	35.2
1986	445	0.029	21.1	16.3	20.6	18.0	4064	234	134	14.1	111	0.593	0.0328	36.7
1987	526	0.035	21.0	16.2	20.5	17.9	4053	237	151	12.8	117	0.665	0.0372	36.3
1988	524	0.034	20.7	15.9	20.5	17.7	4182	251	155	12.8	117	0.641	0.0371	37.0
1989	867	0.060	21.2	16.2	21.0	18.1	4144	234	153	12.8	117	0.681	0.0369	37.6
1990	872	0.069	20.8	15.9	20.6	17.7	4196	238	158	12.6	118	0.686	0.0376	37.5
1991	772	0.061	21.0	16.1	20.8	17.9	4196	229	156	12.7	117	0.708	0.0372	37.8
1992	919	0.076	21.0	16.1	20.8	17.9	4217	234	159	12.6	118	0.702	0.0376	37.9
1993	1127	0.085	21.4	16.3	21.4	18.3	4205	226	161	12.4	119	0.733	0.0383	38.5
1994	1123	0.080	21.3	16.3	21.3	18.2	4221	232	163	12.3	119	0.720	0.0386	38.6
1995	1406	0.093	21.6	16.4	21.8	18.5	4166	237	162	12.2	120	0.707	0.0389	38.6
1996	1143	0.087	22.1	16.7	22.4	18.9	4211	227	174	11.7	123	0.783	0.0415	39.8
1997	1039	0.072	21.9	16.6	22.1	18.7	4277	226	179	11.6	124	0.801	0.0418	40.0
1998	1376	0.095	22.6	17.1	23.1	19.3	4193	221	182	11.2	126	0.835	0.0435	40.6
1999	1387	0.091	22.2	16.8	22.7	19.0	4318	226	184	11.4	125	0.825	0.0426	41.1
2000	1615	0.097	22.7	17.2	23.1	19.4	4284	219	184	11.3	125	0.853	0.0430	41.7
2001	1199	0.077	23.2	17.5	23.5	19.8	4375	219	195	10.9	128	0.903	0.0448	43.5
2002	1028	0.064	23.1	17.5	23.4	19.7	4352	219	194	10.9	128	0.901	0.0448	43.2
2003	1091	0.070	22.7	17.1	23.0	19.4	4543	235	206	10.8	130	0.886	0.0452	44.1
2004	733	0.044	22.9	17.3	23.4	19.6	4479	233	203	10.8	129	0.880	0.0453	44.0

Percent of L-4 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1981	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	0.0	100.0	0.0	0.0	0.0	91.9	8.1	0.0
1984	0.0	0.0	0.0	100.0	15.9	0.0	0.0	81.1	3.0	0.0
1985	0.1	0.0	0.0	100.0	16.2	0.1	0.0	82.8	1.0	0.0
1986	0.1	0.0	0.0	100.0	81.0	44.0	37.0	18.6	0.4	0.0
1987	0.0	0.9	0.0	100.0	99.8	50.9	48.9	0.0	0.2	0.0
1988	0.0	0.2	0.0	100.0	99.8	45.0	54.8	0.0	0.2	0.0
1989	21.7	0.4	0.0	100.0	99.9	60.4	39.5	0.0	0.1	0.0
1990	33.6	8.8	0.0	100.0	99.9	67.1	32.8	0.0	0.1	0.0
1991	24.5	13.9	0.0	100.0	99.9	69.1	30.8	0.0	0.1	0.0
1992	32.5	7.1	0.0	100.0	99.9	73.6	26.4	0.0	0.1	0.0
1993	39.2	5.8	0.0	100.0	100.0	80.3	19.7	0.0	0.0	0.6
1994	47.5	8.1	0.0	100.0	100.0	82.4	17.6	0.0	0.0	1.7
1995	57.7	10.7	0.0	100.0	100.0	90.0	10.0	0.0	0.0	4.1
1996	71.8	2.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	3.0
1997	61.9	4.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	2.8
1998	77.5	3.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	7.6
1999	75.9	2.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	8.7
2000	80.6	2.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0	18.8
2001	83.8	2.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	20.8
2002	81.7	3.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	14.0
2003	71.6	15.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	6.3
2004	77.1	6.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.2

# Appendix J

Table J-22 Characteristics of 1978 to 2004 L-5 TRANSMISSION Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1997	17	0.001	20.4	15.5	20.4	17.4	4236	244	160	12.5	118	0.656	0.0379	36.8
2002	198	0.012	23.0	17.3	23.6	19.7	4625	212	228	10.1	136	1.075	0.0496	45.6
2003	195	0.013	24.2	18.1	25.1	20.7	4422	207	234	9.5	139	1.126	0.0528	45.7
2004	426	0.026	24.2	18.1	25.2	20.7	4528	206	228	9.9	137	1.104	0.0504	47.0

Percent of L-5 TRANSMISSION Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1997	0.0	47.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	98.3	1.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix J

Table J-23

Characteristics of 1978 to 2004 OTHER TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1983	1	0.000	13.7	10.6	13.3	11.6	5000	318	160	14.3	113	0.502	0.0318	29.1
2002	3	0.000	27.4	22.2	25.8	23.7	3500	132	141	11.8	119	1.067	0.0399	42.2
2003	95	0.006	26.6	20.7	25.6	22.6	3787	179	200	9.9	135	1.105	0.0522	42.9
2004	83	0.005	26.4	20.5	25.6	22.5	3800	181	203	9.8	136	1.108	0.0527	42.8

Percent of OTHER TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1983	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
2002	39.5	60.5	0.0	0.0	100.0	100.0	0.0	0.0	0.0	86.7
2003	51.3	48.7	0.0	0.0	100.0	100.0	0.0	0.0	0.0	99.9
2004	34.3	65.7	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix J

Table J-24 Characteristics of 1978 to 2004 M-3 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	83	0.006	16.6	13.8	14.4	14.0	3272	276	120	12.6	113	0.436	0.0368	23.0
1980	19	0.002	15.6	12.5	14.1	13.2	4780	310	140	15.2	108	0.450	0.0284	31.7
1981	9	0.001	16.5	13.4	14.9	14.0	4693	304	131	15.6	106	0.430	0.0269	33.1
1982	9	0.001	16.3	13.1	14.9	13.9	4657	307	136	15.1	108	0.442	0.0284	32.4
1983	8	0.001	17.5	14.0	16.0	14.8	4705	308	137	15.0	108	0.446	0.0286	35.2
1984	4	0.000	15.6	12.2	15.0	13.3	5066	311	161	14.0	113	0.517	0.0316	33.8
1985	12	0.001	16.9	13.6	15.5	14.4	4793	306	150	14.2	111	0.489	0.0309	34.8
1986	9	0.001	16.7	13.4	15.4	14.2	4884	307	146	14.8	109	0.474	0.0294	34.9
1987	6	0.000	16.4	13.1	15.0	13.9	5047	314	164	13.9	114	0.521	0.0314	35.3
1988	3	0.000	15.6	12.3	14.6	13.3	5098	340	192	12.5	121	0.562	0.0359	33.9
1989	3	0.000	15.8	12.6	14.7	13.4	5111	326	174	13.5	116	0.530	0.0326	34.5
1990	1	0.000	14.9	11.7	14.2	12.7	5203	343	199	12.2	122	0.577	0.0354	33.1
1991	0	0.000	15.0	11.9	13.9	12.7	5000	348	207	11.4	126	0.589	0.0380	31.9
1992	19	0.002	21.2	16.6	20.2	18.0	3500	242	190	9.3	136	0.785	0.0542	31.5

Percent of M-3 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	97.7	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	84.2	100.0	0.0	0.0	0.0	0.0	98.3	1.7	0.0
1981	0.0	96.7	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	100.0	100.0	0.0	14.2	0.0	0.0	85.8	0.0	0.0
1986	0.0	100.0	100.0	0.0	33.9	33.9	0.0	66.1	0.0	0.0
1987	0.0	100.0	100.0	0.0	90.0	51.0	39.0	10.0	0.0	0.0
1988	0.0	100.0	100.0	0.0	96.1	12.3	83.8	3.9	0.0	0.0
1989	0.0	100.0	100.0	0.0	100.0	40.7	59.3	0.0	0.0	0.0
1990	0.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1991	0.0	100.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1992	0.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0



# Appendix J

Table J-25

Characteristics of 1978 to 2004 M-4 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	50	0.004	12.4	10.1	11.1	10.5	4888	322	153	14.5	111	0.478	0.0308	25.9
1980	61	0.005	19.1	15.4	17.2	16.2	3184	222	95	14.9	104	0.462	0.0297	26.1
1981	47	0.004	20.1	16.0	18.7	17.1	3293	235	105	14.0	107	0.467	0.0322	28.3
1982	28	0.003	19.5	15.4	18.2	16.6	3634	245	107	15.0	105	0.472	0.0296	30.4
1983	47	0.005	20.7	16.4	19.4	17.6	3403	212	106	14.5	107	0.538	0.0309	30.2
1984	83	0.006	20.6	16.3	19.2	17.5	3603	204	105	15.2	105	0.555	0.0291	31.8
1985	58	0.004	22.0	17.3	20.7	18.7	3529	158	95	16.2	102	0.629	0.0265	33.4
1986	27	0.002	21.6	17.2	20.1	18.4	3616	198	114	14.1	108	0.609	0.0313	33.8
1987	18	0.001	20.1	15.9	18.8	17.1	3872	193	118	14.5	107	0.638	0.0300	34.6
1988	1	0.000	27.1	21.6	25.0	23.0	3348	150	117	13.0	111	0.779	0.0334	38.5
1992	16	0.001	22.1	17.1	21.3	18.8	3484	239	188	9.3	136	0.788	0.0537	32.8

Percent of M-4 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	55.3	100.0	0.0	0.0	0.0	0.0	98.5	1.5	0.0
1980	0.0	100.0	100.0	0.0	0.0	0.0	0.0	93.4	6.6	0.0
1981	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	98.0	100.0	0.0	0.0	0.0	0.0	91.8	8.2	0.0
1983	0.0	93.9	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	95.5	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	88.3	100.0	0.0	9.0	0.0	0.0	91.0	0.0	0.0
1986	0.0	84.8	100.0	0.0	53.0	0.0	53.0	47.0	0.0	0.0
1987	0.0	79.1	100.0	0.0	74.2	6.4	67.8	25.8	0.0	0.0
1988	0.0	69.7	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1992	0.0	67.7	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-26 Characteristics of 1978 to 2004 M-5 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1982	10	0.001	20.2	15.7	19.6	17.2	3062	244	105	13.3	109	0.436	0.0342	26.5
1983	38	0.004	21.6	16.7	21.2	18.5	3495	203	110	14.1	108	0.563	0.0316	32.6
1984	96	0.007	22.5	17.3	22.0	19.2	3468	180	105	14.5	106	0.598	0.0305	33.2
1985	135	0.009	22.2	17.0	22.0	19.0	3564	169	106	14.7	106	0.636	0.0298	33.9
1986	252	0.016	24.0	18.9	22.7	20.5	3409	150	107	14.4	107	0.725	0.0312	35.0
1987	297	0.020	24.1	19.0	22.7	20.5	3274	157	111	13.7	109	0.729	0.0335	33.6
1988	318	0.021	23.8	18.8	22.4	20.3	3315	159	114	13.5	110	0.742	0.0341	33.5
1989	239	0.017	22.3	17.5	21.2	19.0	3589	178	126	13.2	112	0.730	0.0350	34.2
1990	209	0.017	22.4	17.7	21.0	19.0	3497	172	124	13.1	112	0.750	0.0352	33.3
1991	239	0.019	22.0	17.4	20.7	18.7	3739	186	140	12.7	116	0.766	0.0372	35.0
1992	190	0.016	22.2	17.5	20.9	18.9	3700	176	133	12.9	114	0.776	0.0358	34.9
1993	212	0.016	22.3	17.6	20.9	19.0	3641	186	149	11.8	120	0.811	0.0407	34.6
1994	246	0.018	21.8	17.3	20.4	18.6	3632	182	147	12.0	119	0.815	0.0402	33.7
1995	278	0.018	22.0	17.6	20.2	18.7	3535	169	140	12.1	118	0.840	0.0396	33.0
1996	141	0.011	23.7	18.7	22.2	20.1	3588	174	146	11.8	119	0.876	0.0404	36.1
1997	286	0.020	23.1	18.3	21.5	19.6	3537	176	149	11.4	121	0.866	0.0422	34.8
1998	210	0.015	23.1	18.3	21.5	19.6	3586	177	153	11.4	122	0.894	0.0425	35.5
1999	179	0.012	23.2	18.4	21.7	19.7	3666	176	154	11.4	121	0.913	0.0417	36.5
2000	160	0.010	22.6	18.0	21.1	19.3	3778	181	155	11.6	121	0.899	0.0409	36.6
2001	146	0.009	23.8	18.8	22.3	20.2	3711	168	157	11.3	122	0.975	0.0422	38.0
2002	162	0.010	22.8	17.9	21.7	19.5	3899	179	165	11.3	123	0.956	0.0423	38.3
2003	87	0.006	26.2	20.5	25.0	22.3	3652	149	155	11.3	122	1.051	0.0423	41.0
2004	129	0.008	23.9	18.7	23.0	20.4	3793	177	170	10.8	126	0.991	0.0447	39.0

Percent of M-5 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1982	0.0	100.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	90.4	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	92.7	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	94.7	100.0	0.0	13.1	0.0	0.0	86.2	0.6	0.0
1986	0.0	97.4	100.0	0.0	42.8	27.3	15.5	55.2	2.0	0.0
1987	0.0	96.7	100.0	0.0	53.1	33.2	19.9	46.8	0.1	0.0
1988	0.0	91.7	100.0	0.0	63.3	50.4	12.9	36.7	0.0	0.0
1989	0.0	86.8	100.0	0.0	85.2	51.3	33.9	14.8	0.0	0.0
1990	0.0	88.6	100.0	0.0	89.2	54.9	34.3	10.8	0.0	0.0
1991	0.0	78.5	100.0	0.0	99.2	70.5	28.8	0.8	0.0	0.0
1992	0.0	69.9	100.0	0.0	98.4	66.0	32.5	1.6	0.0	0.0
1993	0.0	74.6	100.0	0.0	98.5	84.8	13.7	1.5	0.0	0.0
1994	0.0	73.1	100.0	0.0	100.0	83.5	16.5	0.0	0.0	11.3
1995	0.1	79.2	100.0	0.0	100.0	92.0	8.0	0.0	0.0	20.1
1996	2.9	59.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	52.9
1997	2.9	70.3	100.0	0.0	100.0	100.0	0.0	0.0	0.0	51.1
1998	2.9	74.4	100.0	0.0	100.0	100.0	0.0	0.0	0.0	50.3
1999	2.4	75.5	100.0	0.0	100.0	100.0	0.0	0.0	0.0	47.7
2000	1.6	76.8	100.0	0.0	100.0	100.0	0.0	0.0	0.0	40.8
2001	11.9	68.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	53.4
2002	14.8	68.9	100.0	0.0	100.0	100.0	0.0	0.0	0.0	64.5
2003	37.3	52.6	100.0	0.0	100.0	100.0	0.0	0.0	0.0	78.4
2004	15.9	68.9	100.0	0.0	100.0	100.0	0.0	0.0	0.0	68.2

# Appendix J

Table J-27 Characteristics of 1978 to 2004 M-6 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
2004	4	0.000	22.6	16.7	24.1	19.3	4162	182	225	9.3	140	1.236	0.0543	40.2

Percent of M-6 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
2004	0.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix J

Table J-28 Characteristics of 1978 to 2004 A-3 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	265	0.019	11.7	9.7	10.1	9.9	4823	349	149	14.9	111	0.432	0.0309	23.9
1980	56	0.005	13.7	11.1	12.4	11.6	4496	326	140	14.6	110	0.429	0.0310	26.2
1981	24	0.002	14.2	11.5	12.8	12.1	4743	326	142	15.0	109	0.439	0.0298	28.6
1982	45	0.005	15.7	12.9	13.7	13.3	4178	281	129	14.6	109	0.472	0.0311	27.5
1983	47	0.005	16.2	13.2	14.4	13.7	4116	276	126	14.6	109	0.476	0.0311	28.0
1984	173	0.012	16.4	13.1	15.0	13.9	4141	258	128	14.8	109	0.517	0.0307	29.1
1985	88	0.006	14.2	11.4	13.0	12.0	4717	337	165	13.4	116	0.492	0.0348	28.5
1986	53	0.003	14.5	11.6	13.4	12.3	4653	337	158	13.8	114	0.469	0.0336	28.8
1987	58	0.004	14.6	11.6	13.4	12.4	4604	327	152	14.0	113	0.464	0.0329	28.6
1988	61	0.004	14.9	11.8	13.9	12.7	4649	331	160	13.6	115	0.484	0.0343	29.5
1989	60	0.004	14.5	11.6	13.4	12.3	4610	330	162	13.4	116	0.488	0.0349	28.5
1990	14	0.001	15.9	12.7	14.6	13.5	3991	307	128	14.3	110	0.418	0.0318	27.0
1991	11	0.001	16.4	13.1	15.1	14.0	3847	283	167	11.3	125	0.625	0.0446	27.0
1992	6	0.001	16.1	13.4	14.0	13.7	3500	242	190	9.3	136	0.785	0.0541	24.0
1993	8	0.001	18.0	14.8	16.0	15.3	3500	242	190	9.3	136	0.785	0.0542	26.8
1994	25	0.002	22.1	18.1	19.5	18.7	3500	134	118	13.7	110	0.881	0.0337	32.8

Percent of A-3 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING				FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	63.7	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	99.7	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	72.5	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	71.1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	92.5	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	81.2	0.0	0.0	0.0	0.0	0.0	99.6	0.4	0.0
1986	0.0	91.9	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	0.0	93.2	0.0	0.0	11.9	11.9	0.0	88.1	0.0	0.0
1988	0.0	95.6	0.0	0.0	56.9	39.8	17.1	43.1	0.0	0.0
1989	0.0	94.7	0.0	0.0	62.1	36.8	25.3	37.9	0.0	0.0
1990	0.0	100.0	0.0	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1991	0.0	100.0	0.0	0.0	65.3	65.3	0.0	34.7	0.0	0.0
1992	0.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1994	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-29

Characteristics of 1978 to 2004 A-4 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1987	15	0.001	21.0	17.6	18.2	17.8	3500	156	109	14.6	107	0.699	0.0310	31.2
1988	7	0.000	20.1	16.8	17.3	17.0	3500	156	109	14.6	107	0.699	0.0310	29.8
1989	9	0.001	19.4	16.1	16.8	16.4	4000	181	143	13.0	115	0.790	0.0357	32.8
1990	13	0.001	15.5	12.2	14.7	13.2	4728	312	169	13.1	117	0.557	0.0357	31.5
1991	5	0.000	15.8	12.5	14.8	13.4	4748	313	169	13.1	117	0.550	0.0353	32.0
1992	0	0.000	13.0	10.3	12.2	11.1	5000	357	193	12.3	122	0.536	0.0355	27.7
1997	22	0.002	25.9	20.8	23.7	22.0	3000	149	142	10.4	125	0.953	0.0473	33.1

Percent of A-4 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1987	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1988	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1989	0.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1990	0.0	54.6	0.0	0.0	100.0	9.0	91.0	0.0	0.0	0.0
1991	0.0	56.6	0.0	0.0	100.0	6.9	93.1	0.0	0.0	0.0
1992	0.0	91.2	0.0	0.0	100.0	6.9	93.1	0.0	0.0	0.0
1997	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix J

Table J-30

Characteristics of 1978 to 2004 L-3 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	2	0.000	13.1	10.8	11.5	11.1	4720	340 152	14.3	112	0.446	0.0308	26.3
1980	48	0.004	14.4	11.4	13.4	12.2	5042	342 161	14.3	113	0.470	0.0316	30.9
1981	56	0.005	16.0	12.7	14.9	13.6	4659	318 149	14.3	112	0.468	0.0317	31.8
1982	25	0.003	16.7	13.2	15.8	14.2	4284	313 135	14.5	110	0.435	0.0314	30.7
1983	26	0.003	15.7	12.5	14.6	13.4	4280	330 135	14.5	110	0.410	0.0315	28.9
1984	51	0.004	20.8	17.0	18.7	17.7	3364	174 104	14.7	106	0.607	0.0310	29.7
1985	63	0.004	20.6	16.6	18.7	17.5	3441	166 105	14.9	106	0.632	0.0304	30.2
1986	83	0.005	20.0	16.3	17.9	17.0	3549	178 117	13.9	109	0.669	0.0329	30.2
1987	24	0.002	17.9	14.5	16.3	15.2	4114	212 141	13.4	113	0.702	0.0344	31.3
1988	5	0.000	17.6	13.9	16.8	15.0	4500	318 145	14.2	112	0.456	0.0320	33.8
1989	17	0.001	29.6	24.7	25.7	25.1	2500	97 80	14.3	104	0.825	0.0319	31.4
1990	14	0.001	28.7	23.9	24.9	24.3	2750	97 80	15.4	102	0.825	0.0290	33.5
1991	46	0.004	22.5	19.0	19.2	19.1	3269	133 88	16.3	101	0.681	0.0270	31.3
1992	34	0.003	22.1	18.8	18.6	18.7	3146	128 94	15.0	104	0.748	0.0299	29.6
1993	37	0.003	22.0	18.7	18.5	18.6	3145	128 94	15.0	104	0.749	0.0300	29.5
1994	36	0.003	24.2	19.8	21.4	20.5	2849	132 108	13.2	112	0.832	0.0369	29.5
1995	45	0.003	24.1	19.8	21.4	20.5	2870	130 113	12.5	114	0.893	0.0386	29.9
1996	18	0.001	27.4	22.7	23.9	23.2	2736	97 95	13.3	108	0.979	0.0346	31.8
1997	37	0.003	20.7	16.5	19.0	17.6	3335	188 147	11.4	122	0.808	0.0436	29.5
1998	32	0.002	20.4	16.4	18.6	17.3	3300	191 150	11.2	123	0.812	0.0447	28.8
1999	31	0.002	18.8	15.0	17.5	16.0	3915	226 171	11.2	124	0.758	0.0434	31.3
2000	37	0.002	19.1	15.2	17.7	16.2	3934	230 173	11.1	125	0.755	0.0438	31.9
2001	28	0.002	18.9	15.2	17.3	16.1	3951	233 175	11.0	126	0.753	0.0442	31.8
2002	27	0.002	18.4	14.8	16.7	15.6	3969	236 190	10.4	131	0.805	0.0478	31.0

Percent of L-3 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN FRONT 4WD	TRANSMISSION MANUAL LOCK	FUEL FI	METERING PORT TBI CARB	FOUR DSL VALVE
1979	0.0 0.0	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1980	0.0 63.9	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1981	0.0 77.2	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1982	0.0 95.6	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1983	0.0 99.9	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1984	0.0 100.0	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1985	0.0 94.8	0.0 100.0	0.0	0.0 0.0 100.0	0.0 0.0
1986	0.0 84.3	0.0 100.0	13.8	0.0 13.8 86.2	0.0 0.0
1987	0.0 77.1	0.0 100.0	77.2	0.0 77.2 22.8	0.0 0.0
1988	0.0 0.0	0.0 100.0	100.0	0.0 100.0 0.0	0.0 0.0
1989	0.0 100.0	0.0 100.0	100.0	0.0 100.0 0.0	0.0 0.0
1990	0.0 100.0	0.0 100.0	100.0	0.0 100.0 0.0	0.0 0.0
1991	0.0 33.1	0.0 100.0	100.0	0.0 100.0 0.0	0.0 0.0
1992	0.0 28.8	0.0 100.0	100.0	0.0 100.0 0.0	0.0 0.0
1993	0.0 25.0	0.0 100.0	100.0	5.0 95.0 0.0	0.0 0.0
1994	0.0 68.6	0.0 100.0	100.0	42.2 57.8 0.0	0.0 7.6
1995	0.0 81.9	0.0 100.0	100.0	82.5 17.5 0.0	0.0 0.0
1996	0.0 61.2	0.0 100.0	100.0	100.0 0.0 0.0	0.0 100.0
1997	0.0 92.3	0.0 100.0	100.0	100.0 0.0 0.0	0.0 19.5
1998	0.0 89.8	0.0 100.0	100.0	100.0 0.0 0.0	0.0 23.4
1999	0.0 97.6	0.0 100.0	100.0	100.0 0.0 0.0	0.0 0.0
2000	0.0 98.9	0.0 100.0	100.0	100.0 0.0 0.0	0.0 0.0
2001	0.0 100.0	0.0 100.0	100.0	100.0 0.0 0.0	0.0 0.0
2002	0.0 100.0	0.0 100.0	100.0	100.0 0.0 0.0	0.0 0.0

# Appendix J

Table J-31 Characteristics of 1978 to 2004 L-4 TRANSMISSION SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1982	43	0.004	19.4	14.9	19.0	16.5	5287	336	146	16.3	108	0.437	0.0276	44.9
1983	122	0.012	20.2	15.5	20.0	17.2	4549	256	131	15.7	107	0.545	0.0287	39.6
1984	217	0.015	20.1	15.4	20.0	17.2	4406	241	130	15.3	108	0.567	0.0294	38.0
1985	379	0.026	20.6	15.7	20.7	17.6	4164	218	123	15.3	107	0.586	0.0294	36.7
1986	348	0.023	19.2	14.8	19.0	16.4	4266	233	140	13.9	112	0.643	0.0332	34.9
1987	454	0.031	20.1	15.3	20.0	17.1	4089	228	152	12.8	117	0.689	0.0374	34.9
1988	571	0.037	19.7	15.2	19.4	16.8	4071	240	158	12.3	119	0.679	0.0394	34.2
1989	597	0.041	19.8	15.3	19.3	16.9	4168	263	168	11.9	122	0.652	0.0409	35.1
1990	456	0.036	19.0	14.5	18.8	16.2	4315	259	171	12.1	122	0.679	0.0403	34.8
1991	794	0.063	19.9	15.2	19.7	17.0	4215	247	167	12.0	121	0.687	0.0400	35.8
1992	737	0.061	19.2	14.7	19.0	16.4	4260	247	176	11.7	123	0.723	0.0418	34.9
1993	1053	0.080	19.4	14.8	19.3	16.6	4301	257	188	11.2	127	0.743	0.0443	35.6
1994	1278	0.091	19.2	14.7	18.9	16.4	4392	256	187	11.4	126	0.746	0.0431	36.0
1995	1494	0.099	19.1	14.6	18.9	16.3	4431	257	184	11.6	125	0.734	0.0421	36.2
1996	1730	0.132	19.7	15.1	19.6	16.8	4356	260	189	11.2	127	0.741	0.0437	36.7
1997	1808	0.125	19.6	15.1	19.3	16.8	4467	259	197	11.1	128	0.786	0.0442	37.4
1998	1928	0.133	19.7	15.1	19.6	16.8	4447	256	197	11.0	128	0.795	0.0443	37.5
1999	2227	0.146	19.9	15.3	19.6	16.9	4477	252	204	10.8	130	0.843	0.0456	37.9
2000	2556	0.154	19.9	15.3	19.5	17.0	4514	250	205	10.8	130	0.850	0.0455	38.3
2001	2730	0.175	20.5	15.8	20.0	17.5	4462	235	209	10.6	131	0.926	0.0470	38.9
2002	3052	0.189	20.8	16.0	20.5	17.8	4539	235	224	10.2	135	0.977	0.0494	40.2
2003	3080	0.197	20.8	15.9	20.6	17.7	4643	243	226	10.2	135	0.963	0.0488	41.0
2004	2678	0.161	20.9	16.0	20.8	17.9	4687	245	232	10.1	136	0.971	0.0497	41.7

Percent of L-4 TRANSMISSION SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1982	0.0	55.6	0.0	100.0	0.0	0.0	0.0	47.7	52.3	0.0
1983	0.0	70.8	0.0	100.0	0.0	0.0	0.0	84.1	15.9	0.0
1984	0.0	67.8	0.0	100.0	0.0	0.0	0.0	93.3	6.7	0.0
1985	0.0	71.0	0.0	100.0	3.9	0.0	0.0	93.5	2.5	0.0
1986	0.0	77.2	0.0	100.0	70.9	32.4	38.4	27.2	1.9	0.0
1987	0.0	74.1	0.0	100.0	99.3	39.3	60.0	0.0	0.7	0.0
1988	0.0	78.4	0.0	100.0	99.5	47.9	51.6	0.0	0.5	0.0
1989	0.0	78.8	0.0	100.0	99.6	45.5	54.1	0.0	0.4	0.0
1990	0.0	81.6	0.0	100.0	99.6	63.4	36.1	0.0	0.4	0.0
1991	0.0	78.3	0.0	100.0	99.8	60.0	39.8	0.0	0.2	0.0
1992	0.0	74.1	0.0	100.0	100.0	76.8	23.2	0.0	0.0	0.0
1993	0.0	57.5	0.0	100.0	100.0	88.6	11.4	0.0	0.0	0.0
1994	0.0	78.5	0.0	100.0	100.0	88.2	11.8	0.0	0.0	6.8
1995	0.0	79.1	0.0	100.0	100.0	84.6	15.4	0.0	0.0	15.3
1996	0.8	72.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	12.6
1997	1.2	73.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	23.2
1998	2.1	74.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	23.2
1999	3.2	66.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	28.9
2000	3.0	68.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	27.6
2001	10.1	60.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	43.1
2002	12.1	61.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	56.9
2003	11.5	60.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	51.8
2004	11.8	62.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0	51.8

# Appendix J

Table J-32 Characteristics of 1978 to 2004 L-5 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1997	297	0.021	20.1	15.4	20.0	17.2	4470	244	160	13.0	116	0.656	0.0358	38.4
1998	411	0.028	20.5	15.8	20.2	17.5	4306	239	166	12.3	120	0.701	0.0386	37.7
1999	400	0.026	20.6	15.8	20.2	17.6	4332	240	186	11.3	126	0.781	0.0429	38.0
2000	390	0.024	20.5	15.7	20.2	17.5	4418	241	186	11.5	125	0.780	0.0422	38.6
2001	424	0.027	20.0	15.3	19.9	17.1	4499	241	223	10.0	135	0.937	0.0498	38.6
2002	935	0.058	19.6	15.0	19.7	16.8	4547	249	223	10.1	135	0.906	0.0492	38.2
2003	991	0.063	20.2	15.4	20.2	17.3	4675	247	237	9.9	138	0.975	0.0508	40.4
2004	1383	0.083	20.8	15.8	20.8	17.7	4652	242	244	9.7	140	1.027	0.0526	41.4

Percent of L-5 TRANSMISSION SUVS:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1997	0.0	64.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	53.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	54.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	53.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	13.7
2001	0.0	73.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	22.0
2002	0.0	69.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.9
2003	8.6	67.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	52.7
2004	9.5	73.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	62.9



# Appendix J

Table J-33 Characteristics of 1978 to 2004 L-6 TRANSMISSION SUVS

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
2004	56	0.003	19.5	14.7	19.8	16.6	5425	221	258	10.6	137	1.162	0.0478	45.2

Percent of L-6 TRANSMISSION SUVS:

MODEL YEAR	DRIVE FRONT	TRAIN 4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
2004	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	75.4

# Appendix J

Table J-34 Characteristics of 1978 to 2004 OTHER TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1983	6	0.001	15.6	12.3	14.5	13.2	4498	280	132	15.9	108	0.464	0.0281	30.2
1996	1	0.000	15.5	11.9	15.3	13.2	5385	346	227	11.3	129	0.653	0.0390	35.5

Percent of OTHER TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1983	0.0	59.1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1996	0.0	77.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix J

Table J-35 Characteristics of 1978 to 2004 M-3 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	230	0.017	17.7	14.4	16.0	15.1	4181	272	127	14.6	108	0.469	0.0303	31.7
1980	267	0.024	17.5	13.9	16.1	14.8	4282	293	135	14.2	110	0.464	0.0314	32.1
1981	221	0.021	19.2	15.3	17.7	16.3	4126	285	127	14.4	109	0.449	0.0307	33.9
1982	151	0.016	18.7	15.0	17.2	15.9	4145	289	128	14.4	109	0.445	0.0307	33.3
1983	125	0.012	18.9	15.1	17.3	16.0	4269	296	129	14.6	108	0.438	0.0301	34.5
1984	86	0.006	19.6	15.6	18.3	16.7	4259	289	129	14.7	108	0.445	0.0300	35.7
1985	165	0.011	18.2	14.7	16.6	15.5	4352	302	141	13.8	112	0.469	0.0323	34.1
1986	170	0.011	18.5	14.9	16.8	15.7	4329	299	137	14.2	110	0.459	0.0314	34.1
1987	119	0.008	17.7	14.3	16.0	15.0	4454	303	155	13.1	115	0.512	0.0347	33.6
1988	67	0.004	17.9	14.4	16.3	15.2	4462	311	164	12.6	118	0.527	0.0363	34.1
1989	72	0.005	17.7	14.3	16.0	15.0	4559	307	157	13.3	115	0.511	0.0340	34.6
1990	27	0.002	16.6	13.2	15.4	14.2	4671	316	169	12.8	118	0.532	0.0348	33.5
1991	14	0.001	16.8	13.5	15.5	14.3	4644	314	171	12.6	118	0.543	0.0345	33.8
1992	5	0.000	18.1	14.8	16.1	15.4	4556	300	150	13.6	113	0.498	0.0316	35.1
1993	3	0.000	18.7	15.3	16.7	15.9	4555	300	159	13.1	115	0.527	0.0327	36.3

Percent of M-3 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1979	0.0	9.7	100.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1980	0.0	32.2	100.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1981	0.0	24.9	100.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1982	0.0	32.5	100.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1983	0.0	41.8	100.0	0.0	0.0	0.0	0.0	100.0	0.0 0.0
1984	0.0	23.3	100.0	0.0	0.0	0.0	0.0	98.7	1.3 0.0
1985	0.0	54.3	100.0	0.0	5.2	0.0	0.0	94.2	0.6 0.0
1986	0.0	51.0	100.0	0.0	17.9	17.9	0.0	81.7	0.4 0.0
1987	0.0	54.8	100.0	0.0	93.5	71.4	22.2	6.2	0.2 0.0
1988	0.0	49.2	100.0	0.0	97.4	55.1	42.4	1.5	1.0 0.0
1989	0.0	55.8	100.0	0.0	99.4	74.8	24.6	0.0	0.6 0.0
1990	0.0	67.4	100.0	0.0	98.7	42.1	56.6	0.0	1.3 0.0
1991	0.0	62.1	100.0	0.0	98.2	44.1	54.1	0.0	1.8 0.0
1992	0.0	55.3	100.0	0.0	100.0	100.0	0.0	0.0	0.0 0.0
1993	0.0	56.4	100.0	0.0	100.0	100.0	0.0	0.0	0.0 0.0

# Appendix J

Table J-36 Characteristics of 1978 to 2004 M-4 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	527	0.038	17.8	14.5	16.5	15.4	3692	220 118	14.3	108	0.592	0.0313	28.8
1980	377	0.033	23.2	18.3	21.7	19.7	3104	156 92	14.9	104	0.643	0.0296	31.0
1981	355	0.034	24.6	19.4	23.2	20.9	3253	190 98	14.8	105	0.567	0.0299	34.2
1982	327	0.034	25.5	20.1	24.2	21.7	3166	181 101	14.0	107	0.601	0.0320	34.5
1983	409	0.040	26.5	20.9	24.9	22.5	3035	159 92	14.6	104	0.606	0.0303	34.4
1984	460	0.033	22.9	18.1	21.5	19.5	3412	192 101	14.9	105	0.563	0.0296	33.7
1985	316	0.022	26.4	20.7	25.2	22.5	3135	180 102	13.8	107	0.606	0.0325	35.5
1986	294	0.019	26.6	20.9	25.2	22.7	3206	181 104	13.8	108	0.617	0.0327	36.6
1987	276	0.019	26.1	20.5	24.8	22.2	3235	182 109	13.5	109	0.629	0.0337	36.2
1988	110	0.007	26.2	21.2	23.7	22.2	2947	146 106	12.7	111	0.723	0.0360	32.9
1989	57	0.004	25.6	20.7	23.2	21.7	2955	157 107	12.6	111	0.698	0.0364	32.0
1990	51	0.004	26.0	20.8	23.9	22.1	2988	156 110	12.5	112	0.721	0.0370	33.0
1991	5	0.000	20.3	15.9	19.4	17.3	4271	249 143	13.6	113	0.604	0.0320	36.6
1992	45	0.004	18.9	14.5	18.9	16.2	4312	279 161	12.6	118	0.575	0.0365	34.9
1993	24	0.002	17.7	13.7	17.2	15.1	4813	313 190	12.0	123	0.605	0.0382	36.6
1994	17	0.001	17.4	13.6	16.7	14.8	4946	326 198	11.8	124	0.608	0.0390	37.0
1995	11	0.001	17.6	13.6	17.2	15.0	4961	331 199	11.7	124	0.603	0.0391	37.4

Percent of M-4 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL VALVE
1979	0.0	29.9	100.0	0.0	0.0	0.0	0.0	99.9	0.1 0.0
1980	5.5	28.8	100.0	0.0	3.1	0.0	0.0	94.4	2.5 0.0
1981	4.8	22.7	100.0	0.0	1.4	0.0	0.0	93.7	4.9 0.0
1982	4.8	15.9	100.0	0.0	0.4	0.0	0.0	93.9	5.7 0.0
1983	1.1	16.7	100.0	0.0	0.1	0.0	0.0	96.4	3.5 0.0
1984	0.4	27.0	100.0	0.0	0.0	0.0	0.0	98.1	1.9 0.0
1985	0.0	10.1	100.0	0.0	20.6	0.0	0.0	78.7	0.7 0.0
1986	0.0	9.0	100.0	0.0	35.3	4.6	30.7	64.2	0.5 0.0
1987	0.0	7.3	100.0	0.0	63.9	22.3	41.7	35.9	0.2 0.0
1988	0.0	0.8	100.0	0.0	41.7	3.2	38.5	58.3	0.0 0.0
1989	0.0	6.6	100.0	0.0	19.2	6.2	13.0	80.8	0.0 0.0
1990	0.0	5.5	100.0	0.0	38.4	33.5	4.9	61.6	0.0 0.0
1991	0.0	59.6	100.0	0.0	82.5	65.9	16.6	17.4	0.1 0.0
1992	0.0	46.1	100.0	0.0	99.2	57.2	42.1	0.0	0.8 0.0
1993	0.0	67.6	100.0	0.0	100.0	19.7	80.3	0.0	0.0 0.0
1994	0.0	74.7	100.0	0.0	100.0	11.4	88.6	0.0	0.0 0.0
1995	0.0	68.9	100.0	0.0	100.0	11.3	88.7	0.0	0.0 0.0

# Appendix J

Table J-37 Characteristics of 1978 to 2004 M-5 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	124	0.009	22.7	17.5	22.1	19.4	2810	132	89	14.2	105	0.675	0.0318	27.8
1980	200	0.018	25.5	20.0	24.2	21.7	2788	129	91	13.9	106	0.704	0.0326	30.6
1981	254	0.024	28.7	22.7	26.9	24.4	2867	134	85	15.2	103	0.632	0.0297	35.8
1982	298	0.031	28.0	22.2	26.1	23.8	2955	139	88	15.1	103	0.634	0.0298	35.9
1983	383	0.037	27.0	21.2	25.6	23.0	3059	144	94	14.5	105	0.659	0.0308	35.6
1984	575	0.041	26.8	21.1	25.4	22.8	3069	141	92	14.8	104	0.657	0.0301	35.4
1985	590	0.041	26.3	20.8	24.8	22.4	3109	146	100	14.0	107	0.682	0.0320	35.1
1986	1013	0.066	26.1	20.5	24.7	22.2	3133	143	101	14.0	107	0.705	0.0323	34.9
1987	859	0.058	26.1	20.4	24.9	22.2	3127	147	103	13.9	108	0.697	0.0328	34.9
1988	1076	0.070	24.6	19.2	23.6	21.0	3382	181	115	13.6	110	0.658	0.0338	35.7
1989	1040	0.072	23.8	18.6	22.8	20.2	3495	189	122	13.2	112	0.674	0.0348	35.5
1990	763	0.060	23.7	18.5	22.8	20.2	3540	193	130	12.7	114	0.708	0.0367	36.0
1991	983	0.078	24.4	19.0	23.5	20.8	3439	186	127	12.7	114	0.707	0.0367	36.0
1992	816	0.067	23.8	18.5	23.0	20.3	3585	193	130	12.8	114	0.704	0.0363	36.5
1993	852	0.065	24.1	18.6	23.4	20.5	3548	187	131	12.6	114	0.723	0.0369	36.6
1994	1030	0.074	24.3	18.9	23.4	20.7	3632	184	132	12.8	114	0.745	0.0364	37.9
1995	889	0.059	23.7	18.4	23.0	20.2	3781	197	139	12.6	115	0.752	0.0370	38.6
1996	677	0.052	24.4	18.9	23.7	20.8	3739	187	142	12.4	116	0.794	0.0379	39.2
1997	608	0.042	24.7	19.1	24.0	21.0	3778	189	149	12.1	118	0.809	0.0391	40.1
1998	660	0.046	24.4	18.9	23.7	20.8	3759	184	150	12.0	119	0.834	0.0396	39.6
1999	447	0.029	23.7	18.3	23.0	20.2	3800	192	156	11.7	120	0.822	0.0406	38.7
2000	435	0.026	23.5	18.3	22.5	20.0	3822	192	160	11.6	121	0.841	0.0414	38.5
2001	303	0.019	22.9	17.9	22.0	19.5	3911	199	164	11.5	122	0.844	0.0417	38.5
2002	227	0.014	22.7	17.8	21.7	19.4	3991	206	176	11.0	125	0.868	0.0437	39.0
2003	243	0.016	23.1	18.0	22.3	19.7	3965	198	170	11.3	124	0.869	0.0424	39.3
2004	199	0.012	22.7	17.6	22.0	19.4	3994	203	179	10.8	127	0.902	0.0447	39.0

Percent of M-5 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL METERING FI PORT TBI CARB				FOUR DSL VALVE	
1979	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	2.1	3.8	100.0	0.0	0.8	0.0	0.0	97.9	1.3	0.0
1981	6.5	19.5	100.0	0.0	1.7	0.0	0.0	73.3	25.0	0.0
1982	3.0	27.1	100.0	0.0	0.7	0.0	0.0	77.0	22.3	0.0
1983	3.3	31.0	100.0	0.0	0.1	0.0	0.0	92.5	7.4	0.0
1984	1.2	30.0	100.0	0.0	2.6	0.0	0.0	93.3	4.1	0.0
1985	0.0	35.2	100.0	0.0	20.1	0.0	0.0	78.0	1.9	0.0
1986	0.0	28.7	100.0	0.0	41.0	19.1	21.9	58.2	0.8	0.0
1987	0.0	28.2	100.0	0.0	43.4	22.9	20.5	56.2	0.4	0.0
1988	0.0	29.1	100.0	0.0	72.7	45.1	27.6	27.3	0.0	0.0
1989	0.0	28.2	100.0	0.0	85.5	48.9	36.6	14.5	0.0	0.0
1990	0.0	27.4	100.0	0.0	90.8	68.3	22.5	9.2	0.0	0.0
1991	0.0	21.8	100.0	0.0	94.5	56.6	37.9	5.5	0.0	0.0
1992	0.0	23.0	100.0	0.0	93.1	63.3	29.9	6.9	0.0	0.0
1993	0.0	24.2	100.0	0.0	95.5	73.9	21.6	4.5	0.0	0.0
1994	0.0	25.0	100.0	0.0	98.0	88.9	9.1	2.0	0.0	0.2
1995	0.0	23.0	100.0	0.0	100.0	84.8	15.2	0.0	0.0	8.0
1996	0.0	21.5	100.0	0.0	100.0	100.0	0.0	0.0	0.0	14.5
1997	0.0	19.2	100.0	0.0	100.0	100.0	0.0	0.0	0.0	1.3
1998	0.0	25.3	100.0	0.0	100.0	100.0	0.0	0.0	0.0	25.1
1999	0.0	29.4	100.0	0.0	100.0	100.0	0.0	0.0	0.0	20.4
2000	0.0	24.6	100.0	0.0	100.0	100.0	0.0	0.0	0.0	22.3
2001	0.0	25.9	100.0	0.0	100.0	100.0	0.0	0.0	0.0	30.7
2002	0.0	31.1	100.0	0.0	100.0	100.0	0.0	0.0	0.0	47.2
2003	0.0	32.3	100.0	0.0	100.0	100.0	0.0	0.0	0.0	26.3
2004	0.0	36.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	43.6

# Appendix J

Table J-38 Characteristics of 1978 to 2004 A-3 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	1297	0.093	14.0	11.6	12.3	11.9	4448	331	149	14.2	113	0.456	0.0336	27.1
1980	277	0.025	17.3	14.0	15.5	14.7	3944	278	129	14.1	110	0.492	0.0325	29.1
1981	207	0.020	17.6	14.2	16.0	15.0	3968	287	125	14.5	109	0.455	0.0314	29.9
1982	196	0.020	17.1	13.9	15.3	14.5	3987	292	129	14.1	110	0.459	0.0323	29.3
1983	239	0.023	17.9	14.4	16.3	15.2	3705	248	116	14.6	108	0.501	0.0310	28.7
1984	297	0.021	17.1	13.8	15.6	14.6	3855	269	130	14.1	111	0.501	0.0333	28.4
1985	268	0.019	16.5	13.4	14.9	14.0	4106	306	154	12.8	117	0.507	0.0371	29.1
1986	236	0.015	17.7	14.3	15.9	15.0	4023	288	145	13.3	115	0.516	0.0357	30.5
1987	200	0.013	16.7	13.5	15.2	14.2	4318	303	157	13.0	117	0.522	0.0362	30.9
1988	199	0.013	16.8	13.5	15.3	14.3	4441	309	168	12.5	119	0.546	0.0378	31.9
1989	101	0.007	16.0	12.9	14.6	13.6	4501	318	170	12.6	119	0.533	0.0375	30.9
1990	47	0.004	16.4	13.3	14.9	14.0	4323	328	183	11.6	125	0.565	0.0419	31.5

Percent of A-3 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	7.5	0.0	0.0	0.0	0.0	0.0	95.8	4.2	0.0
1980	0.6	15.9	0.0	0.0	0.6	0.0	0.0	99.4	0.0	0.0
1981	0.0	10.5	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	3.7	14.1	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	5.7	18.6	0.0	0.0	0.1	0.0	0.0	99.8	0.1	0.0
1984	1.2	30.9	0.0	0.0	0.0	0.0	0.0	99.5	0.5	0.0
1985	0.0	22.4	0.0	0.0	2.3	0.0	0.0	97.5	0.2	0.0
1986	0.0	19.7	0.0	0.0	8.9	8.9	0.0	91.0	0.1	0.0
1987	0.0	25.5	0.0	0.0	66.0	44.4	21.6	34.0	0.0	0.0
1988	0.0	31.0	0.0	0.0	98.0	44.5	53.5	2.0	0.0	0.0
1989	0.0	37.7	0.0	0.0	100.0	56.4	43.6	0.0	0.0	0.0
1990	0.0	12.2	0.0	0.0	100.0	2.5	97.5	0.0	0.0	0.0

# Appendix J

Table J-39 Characteristics of 1978 to 2004 A-4 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1981	6	0.001	26.5	21.5	23.9	22.5	2750	144	98	13.1	109	0.681	0.0355	30.9
1982	42	0.004	19.6	15.2	19.2	16.7	3715	262	131	13.2	113	0.525	0.0352	31.0
1983	9	0.001	26.6	22.0	23.1	22.5	2788	144	99	13.1	109	0.685	0.0353	31.4
1984	27	0.002	24.6	20.6	21.0	20.8	2809	144	100	13.1	110	0.694	0.0355	29.3
1985	38	0.003	25.1	21.0	21.6	21.3	3018	144	107	13.2	110	0.741	0.0352	32.3
1986	47	0.003	23.4	19.7	19.9	19.8	3133	144	107	13.4	110	0.745	0.0346	31.3
1987	72	0.005	26.1	21.4	23.2	22.2	3040	142	103	13.7	109	0.725	0.0339	34.0
1988	53	0.003	24.7	20.4	21.5	20.9	3112	142	108	13.4	110	0.765	0.0350	32.9
1989	34	0.002	27.1	22.0	24.2	23.0	3024	141	109	13.0	111	0.773	0.0360	34.9
1990	32	0.003	17.8	14.2	16.4	15.1	4047	259	153	12.5	117	0.635	0.0375	31.4
1991	27	0.002	20.0	16.2	18.1	17.0	3683	213	135	12.7	115	0.684	0.0365	31.9
1992	16	0.001	24.8	20.3	22.1	21.1	3105	156	118	12.5	114	0.767	0.0375	33.0
1993	16	0.001	26.3	21.2	24.0	22.3	3000	144	112	12.6	113	0.778	0.0373	33.5
1994	25	0.002	26.3	21.1	24.0	22.3	3000	144	112	12.6	113	0.778	0.0373	33.5
1995	20	0.001	26.3	21.2	23.8	22.3	3000	147	132	11.1	121	0.897	0.0441	33.5
1996	26	0.002	25.9	20.8	23.7	22.0	3000	149	142	10.4	125	0.953	0.0473	33.0
1998	37	0.003	26.5	21.3	24.1	22.5	3000	149	142	10.4	125	0.953	0.0473	33.8
1999	24	0.002	26.5	21.3	24.1	22.5	3000	149	142	10.4	125	0.953	0.0473	33.8
2000	21	0.001	26.2	21.2	23.7	22.3	3000	149	142	10.4	125	0.953	0.0473	33.4
2001	21	0.001	26.0	21.1	23.4	22.1	3213	149	142	11.0	122	0.953	0.0444	35.5
2002	21	0.001	27.0	21.6	24.7	22.9	3238	149	142	11.1	122	0.953	0.0441	37.1
2003	22	0.001	27.0	21.6	24.7	22.9	3234	149	142	11.0	122	0.953	0.0441	37.0
2004	17	0.001	27.0	21.6	24.8	22.9	3212	149	142	11.0	122	0.953	0.0444	36.8

Percent of A-4 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI CARB			DSL	FOUR VALVE
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	0.0	0.0	0.0	17.1	0.0	0.0	82.9	0.0	0.0
1985	0.0	0.0	0.0	0.0	28.4	0.0	0.0	71.6	0.0	0.0
1986	0.0	0.0	0.0	0.0	33.5	33.5	0.0	66.5	0.0	0.0
1987	0.0	5.3	0.0	0.0	9.7	9.7	0.0	90.3	0.0	0.0
1988	0.0	7.2	0.0	0.0	54.3	54.3	0.0	45.7	0.0	0.0
1989	0.0	4.9	0.0	0.0	61.9	61.9	0.0	38.1	0.0	0.0
1990	0.0	37.1	0.0	0.0	100.0	37.7	62.3	0.0	0.0	0.0
1991	0.0	28.4	0.0	0.0	100.0	61.7	38.3	0.0	0.0	0.0
1992	0.0	3.9	0.0	0.0	100.0	96.0	4.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1994	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	68.2
1996	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1998	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix J

Table J-40 Characteristics of 1978 to 2004 L-3 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1979	29	0.002	16.2	13.1	14.6	13.7	4000	290	132	14.2	111	0.454	0.0330	27.5
1980	315	0.028	17.0	13.6	15.7	14.5	4469	313	142	14.4	111	0.458	0.0319	33.0
1981	343	0.032	18.3	14.6	17.0	15.6	4221	290	139	14.0	112	0.483	0.0329	33.1
1982	275	0.028	20.1	15.9	18.9	17.1	3768	245	130	13.6	112	0.545	0.0345	32.2
1983	119	0.012	19.0	15.0	17.8	16.1	4100	277	139	13.9	113	0.503	0.0336	33.1
1984	193	0.014	18.5	14.7	17.2	15.7	4164	276	137	14.1	111	0.502	0.0327	32.8
1985	234	0.016	17.8	14.2	16.3	15.1	4204	279	147	13.4	114	0.536	0.0350	31.8
1986	206	0.013	18.0	14.5	16.5	15.3	4155	279	146	13.3	114	0.534	0.0350	31.8
1987	134	0.009	20.0	15.8	18.7	17.0	3751	251	125	14.0	111	0.502	0.0333	32.0
1988	99	0.006	19.5	15.4	18.3	16.6	3825	247	123	14.3	109	0.512	0.0321	31.8
1989	40	0.003	19.4	15.6	17.8	16.5	3835	230	117	15.0	107	0.533	0.0303	31.7
1990	24	0.002	18.7	15.2	16.9	15.9	3919	242	132	14.1	111	0.556	0.0332	31.3
1991	13	0.001	17.0	13.5	15.9	14.5	4272	294	156	12.9	117	0.531	0.0365	31.0
1992	5	0.000	18.1	14.6	16.5	15.4	4043	239	127	14.5	109	0.531	0.0309	31.1
1993	4	0.000	18.5	15.0	16.8	15.8	4039	239	127	14.5	109	0.531	0.0309	31.8

Percent of L-3 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1979	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	17.8	0.0	100.0	0.0	0.0	0.0	84.8	15.2	0.0
1981	0.0	10.4	0.0	100.0	0.0	0.0	0.0	93.8	6.2	0.0
1982	0.0	5.9	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	3.0	0.0	100.0	0.2	0.0	0.0	99.2	0.6	0.0
1984	0.0	1.1	0.0	100.0	0.1	0.0	0.0	99.8	0.1	0.0
1985	0.0	0.1	0.0	100.0	2.5	0.0	2.5	97.5	0.0	0.0
1986	0.0	3.8	0.0	100.0	3.3	0.0	3.3	96.7	0.0	0.0
1987	0.0	21.6	0.0	100.0	4.9	0.0	4.9	95.1	0.0	0.0
1988	0.0	13.1	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1989	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1990	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1991	0.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	0.0	0.0
1992	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0



# Appendix J

Table J-41 Characteristics of 1978 to 2004 L-4 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1981	53	0.005	18.0	13.8	18.0	15.4	4030	302	142	13.2	114	0.470	0.0352	31.0
1982	150	0.015	20.2	15.8	19.2	17.2	4713	324	149	14.6	112	0.465	0.0319	41.0
1983	337	0.033	20.2	15.6	19.5	17.2	4134	274	138	13.9	112	0.524	0.0335	35.8
1984	405	0.029	19.8	15.3	19.4	16.9	4115	268	135	14.0	111	0.521	0.0327	34.9
1985	465	0.032	20.5	15.7	20.2	17.5	3913	244	131	13.8	111	0.558	0.0334	34.2
1986	564	0.037	20.2	15.7	19.7	17.3	3966	248	140	13.2	114	0.593	0.0354	34.2
1987	485	0.033	20.5	15.7	20.3	17.5	3855	240	149	12.5	118	0.644	0.0383	33.7
1988	855	0.056	19.6	15.1	19.3	16.7	4091	279	164	12.1	121	0.606	0.0399	34.2
1989	886	0.061	19.4	15.0	19.0	16.6	4108	284	167	12.0	122	0.599	0.0406	34.0
1990	890	0.071	19.1	14.6	18.8	16.3	4266	290	170	12.2	121	0.601	0.0399	34.7
1991	877	0.070	19.6	15.0	19.3	16.7	4139	282	167	12.0	121	0.607	0.0404	34.7
1992	953	0.078	19.1	14.6	19.0	16.3	4306	288	168	12.3	120	0.594	0.0392	35.1
1993	1103	0.084	19.3	14.8	19.2	16.5	4337	287	176	11.9	122	0.622	0.0405	35.9
1994	1518	0.109	19.3	14.8	19.0	16.4	4353	291	184	11.5	125	0.645	0.0423	35.8
1995	1350	0.089	18.7	14.3	18.5	15.9	4457	296	186	11.6	124	0.642	0.0417	35.6
1996	1251	0.095	19.2	14.7	19.1	16.4	4458	288	199	11.1	128	0.702	0.0443	36.6
1997	1749	0.121	19.3	14.7	19.2	16.5	4649	291	213	10.8	131	0.740	0.0457	38.3
1998	1660	0.115	19.4	14.8	19.5	16.6	4534	282	208	10.8	130	0.749	0.0456	37.6
1999	2012	0.132	19.2	14.7	18.9	16.3	4674	286	218	10.7	132	0.768	0.0464	38.1
2000	2097	0.127	19.9	15.3	19.5	17.0	4472	269	213	10.6	132	0.798	0.0473	37.9
2001	1980	0.127	19.0	14.6	18.7	16.2	4741	287	229	10.4	134	0.803	0.0481	38.5
2002	1903	0.118	18.9	14.6	18.5	16.1	4887	288	240	10.2	136	0.834	0.0490	39.4
2003	1595	0.102	19.6	15.2	19.1	16.7	4717	275	234	10.3	136	0.851	0.0491	39.4
2004	1776	0.107	19.7	15.3	19.2	16.8	5096	291	255	10.1	139	0.880	0.0499	42.8

Percent of L-4 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING		FOUR		
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1981	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	19.3	0.0	100.0	0.0	0.0	0.0	58.0	42.0	0.0
1983	0.0	20.1	0.0	100.0	0.0	0.0	0.0	91.7	8.3	0.0
1984	0.0	23.3	0.0	100.0	0.0	0.0	0.0	95.0	5.0	0.0
1985	0.0	29.6	0.0	100.0	24.9	0.0	0.1	72.8	2.3	0.0
1986	0.0	31.8	0.0	100.0	68.8	46.6	22.2	30.1	1.1	0.0
1987	0.1	28.0	0.0	100.0	94.2	28.5	65.7	5.2	0.5	0.0
1988	0.0	31.9	0.0	100.0	98.3	26.6	71.8	1.2	0.5	0.0
1989	0.0	30.2	0.0	100.0	98.2	24.9	73.3	1.5	0.4	0.0
1990	0.0	29.7	0.0	100.0	98.7	44.8	53.9	1.0	0.3	0.0
1991	0.0	27.6	0.0	100.0	99.0	38.5	60.5	0.7	0.3	0.0
1992	0.0	28.5	0.0	100.0	99.4	52.5	46.9	0.4	0.2	0.0
1993	0.0	29.8	0.0	100.0	99.7	51.6	48.1	0.3	0.0	0.0
1994	0.0	33.7	0.0	100.0	100.0	54.9	45.1	0.0	0.0	0.0
1995	0.0	39.8	0.0	100.0	100.0	59.5	40.5	0.0	0.0	3.0
1996	0.0	34.1	0.0	100.0	99.7	99.7	0.0	0.0	0.3	3.7
1997	0.0	39.8	0.0	100.0	99.9	99.9	0.0	0.0	0.1	1.3
1998	0.0	38.5	0.0	100.0	99.9	99.9	0.0	0.0	0.1	4.1
1999	0.0	48.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	4.0
2000	0.0	40.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	10.2
2001	0.0	41.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	10.0
2002	0.0	44.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	14.5
2003	0.0	42.8	0.0	100.0	100.0	100.0	0.0	0.0	0.0	13.4
2004	0.0	43.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	18.9

# Appendix J

Table J-42 Characteristics of 1978 to 2004 L-5 TRANSMISSION Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1997	51	0.004	21.1	16.1	20.9	18.0	3974	244	160	11.8	121	0.656	0.0402	35.7
1998	58	0.004	21.1	16.3	20.6	18.0	3843	244	160	11.5	122	0.656	0.0417	34.5
1999	67	0.004	20.5	15.9	19.9	17.5	3947	244	160	11.8	121	0.656	0.0406	34.4
2000	60	0.004	20.0	15.5	19.4	17.1	3948	244	160	11.8	121	0.656	0.0406	33.7
2001	317	0.020	20.7	15.9	20.3	17.6	4056	220	185	10.9	128	0.841	0.0455	35.7
2002	230	0.014	21.1	16.2	20.7	18.0	3882	205	171	11.2	125	0.835	0.0439	35.0
2003	512	0.033	19.9	15.4	19.4	17.0	4626	259	226	10.5	134	0.866	0.0482	39.3
2004	537	0.032	19.4	14.7	19.6	16.5	4791	281	252	9.9	140	0.889	0.0517	39.5

Percent of L-5 TRANSMISSION Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1997	0.0	42.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	58.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	68.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	71.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	40.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	2.8
2002	0.0	40.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	8.8
2003	0.0	35.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0	7.2
2004	0.0	33.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	24.1

# Appendix K

Table K-1

Characteristics of 1975 to 2004 Other Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	2	0.000	11.5	8.8	11.4	9.8	4500		326	285	8.2	154	0.873	0.0620	22.1		
1976	2	0.000	11.0	8.5	10.7	9.4	4500		326	244	9.3	142	0.747	0.0534	21.1		
1977	2	0.000	11.2	8.7	10.9	9.6	4445	91.6	326	244	9.2	142	0.748	0.0542	21.3	878	1948
1978	1	0.000	11.4	9.0	10.7	9.7	4500	93.4	326	268	8.6	149	0.820	0.0579	21.8	906	2038
1979	1	0.000	11.0	8.8	10.2	9.4	4500	92.4	326	244	9.3	142	0.747	0.0529	21.1	866	1949
1980	0	0.000	13.1	9.9	13.3	11.2	4224	89.5	326	267	8.2	152	0.808	0.0511	24.1	1027	2157
1982	1	0.000	16.5	12.4	17.0	14.1	4000	87.3	326	262	8.0	154	0.803	0.0647	28.3	1234	2468
1983	2	0.000	16.5	12.4	17.2	14.1	3989	86.5	325	264	8.0	155	0.811	0.0654	28.2	1226	2448
1984	3	0.000	16.6	12.4	17.1	14.2	3997	84.9	326	262	8.0	154	0.806	0.0650	28.3	1204	2408
1985	4	0.000	16.5	12.4	16.9	14.1	4000	84.1	325	265	7.9	155	0.816	0.0661	28.2	1189	2377
1986	5	0.000	16.2	12.2	16.7	13.9	3996	82.5	324	270	7.9	157	0.833	0.0673	27.9	1159	2318
1987	3	0.000	16.7	12.7	16.8	14.2	3991	75.4	324	276	7.8	159	0.855	0.0688	28.8	1100	2197
1988	9	0.001	16.1	12.1	16.6	13.8	4157	94.0	318	280	7.9	157	0.883	0.0672	28.8	1311	2750
1989	11	0.001	16.4	12.3	17.0	14.0	4310	85.4	318	279	8.1	155	0.880	0.0646	30.5	1215	2622
1990	9	0.001	16.8	12.5	17.5	14.4	4379	82.7	317	280	8.2	155	0.889	0.0640	31.6	1195	2617
1991	7	0.001	16.6	12.3	17.7	14.3	4409	87.0	312	305	7.7	162	0.977	0.0690	31.5	1249	2761
1992	5	0.000	16.3	12.1	17.1	14.0	4458	87.2	334	317	7.7	165	0.948	0.0706	31.2	1209	2732
1993	3	0.000	16.8	12.4	18.0	14.4	4412	81.0	377	364	6.8	182	0.979	0.0834	31.6	1150	2637
1994	7	0.000	17.2	12.7	18.3	14.7	4158	70.8	407	354	6.7	183	0.877	0.0867	30.5	1029	2192
1995	5	0.000	16.7	12.3	17.9	14.3	4432	82.3	390	373	6.6	183	0.973	0.0840	32.0	1185	2689
1996	4	0.000	18.3	13.3	20.1	15.7	4131	79.8	408	381	6.2	193	0.949	0.0940	32.5	1262	2733
1997	4	0.000	17.1	12.2	19.7	14.7	4218	75.6	403	405	6.0	199	1.016	0.0985	31.5	1136	2514
1998	3	0.000	17.5	12.7	19.5	15.0	4222	79.4	388	395	6.2	195	1.026	0.0949	32.2	1231	2700
1999	3	0.000	16.1	11.6	18.1	13.9	4274	75.2	394	412	6.1	200	1.060	0.0987	30.1	1071	2426
2000	4	0.000	16.4	11.7	18.8	14.1	4150	71.5	405	412	5.9	203	1.031	0.1017	29.6	1025	2243
2001	6	0.000	17.5	12.6	20.0	15.1	4239	86.4	389	398	6.2	196	1.033	0.0952	33.1	1389	3080
2002	4	0.000	17.6	12.5	20.3	15.1	4126	80.7	399	410	5.9	202	1.039	0.1000	31.9	1286	2770
2003	5	0.000	16.8	12.0	19.2	14.4	4313	80.9	403	481	5.3	219	1.225	0.1106	31.8	1210	2696
2004	52	0.003	22.7	17.2	23.1	19.4	3645	94.7	190	268	7.6	161	1.448	0.0728	35.5	1875	3401

PERCENT OF Other Cylinder Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL		METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1976	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1977	0.0	0.0	10.9	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1978	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1979	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1980	0.0	0.0	11.5	0.0	64.5	64.5	0.0	35.5	0.0	0.0
1982	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1983	0.0	0.0	2.2	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1984	0.0	0.0	0.6	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1985	0.0	0.0	2.8	0.0	100.0	100.0	0.0	0.0	0.0	0.0
1986	0.0	0.0	6.4	0.0	100.0	100.0	0.0	0.0	0.0	6.4
1987	0.0	0.0	11.0	0.0	100.0	100.0	0.0	0.0	0.0	11.0
1988	0.0	0.0	5.4	32.7	100.0	100.0	0.0	0.0	0.0	5.4
1989	0.0	0.0	3.9	33.8	100.0	98.4	1.6	0.0	0.0	3.9
1990	0.0	0.0	4.8	37.0	100.0	100.0	0.0	0.0	0.0	4.8
1991	1.6	0.0	12.2	53.4	100.0	100.0	0.0	0.0	0.0	5.3
1992	0.0	1.1	14.4	24.4	100.0	100.0	0.0	0.0	0.0	26.4
1993	0.0	0.4	30.9	25.9	100.0	100.0	0.0	0.0	0.0	43.0
1994	0.0	1.5	40.5	36.8	100.0	100.0	0.0	0.0	0.0	25.0
1995	0.0	0.8	33.1	30.4	100.0	100.0	0.0	0.0	0.0	42.4
1996	0.0	0.6	44.5	55.5	100.0	100.0	0.0	0.0	0.0	26.9
1997	0.0	1.8	40.8	59.2	100.0	100.0	0.0	0.0	0.0	47.2
1998	0.0	2.9	37.0	63.0	100.0	100.0	0.0	0.0	0.0	39.7
1999	0.0	5.2	47.1	52.9	100.0	100.0	0.0	0.0	0.0	45.8
2000	0.0	0.0	56.6	43.4	100.0	100.0	0.0	0.0	0.0	53.9
2001	0.0	2.7	39.7	60.3	100.0	100.0	0.0	0.0	0.0	17.9
2002	0.0	2.4	41.0	59.0	100.0	100.0	0.0	0.0	0.0	20.7
2003	0.0	3.0	46.9	53.1	100.0	100.0	0.0	0.0	0.0	38.0
2004	0.0	2.9	67.0	33.0	100.0	100.0	0.0	0.0	0.0	4.8

# Appendix K

Table K-2

Characteristics of 1975 to 2004 Two-Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	51	0.005	15.8	12.2	15.4	13.5	2899		152	129	10.9	121	0.849	0.0444	19.5		
1976	27	0.002	20.4	15.8	19.9	17.4	2952		156	132	10.8	121	0.846	0.0444	25.8		
1977	16	0.001	22.3	17.0	22.3	19.1	2965	91.1	157	133	10.8	121	0.845	0.0443	28.5	1747	2596
1978	2	0.000	20.9	16.3	20.1	17.8	2855	94.2	154	131	10.6	122	0.845	0.0425	25.5	1683	2416
1979	52	0.004	20.4	15.3	21.1	17.5	2750	50.0	140	125	10.6	121	0.893	0.0454	24.0	873	1201
1980	52	0.005	19.8	14.8	20.8	17.0	2750	50.0	140	100	12.6	110	0.714	0.0363	23.4	850	1168
1981	34	0.003	23.7	18.4	23.0	20.2	2500	50.0	140	100	11.7	113	0.714	0.0399	25.3	1012	1265
1982	51	0.005	23.7	18.4	22.9	20.2	2500	50.0	140	100	11.7	113	0.714	0.0400	25.3	1011	1264
1983	61	0.006	22.7	17.6	22.0	19.3	2516	50.0	140	100	11.8	113	0.714	0.0397	24.3	968	1216
1984	41	0.003	22.0	16.5	22.5	18.8	2577	50.0	144	109	11.4	116	0.749	0.0420	24.2	940	1210
1985	59	0.004	22.1	16.6	22.6	18.9	2567	50.0	143	106	11.5	115	0.739	0.0411	24.2	944	1212
1986	51	0.003	23.0	17.1	24.0	19.7	2925	79.4	160	146	9.9	127	0.912	0.0500	28.8	1562	2284
1987	51	0.003	22.8	17.0	23.8	19.5	3000	50.0	160	152	9.8	129	0.953	0.0508	29.3	977	1465
1988	39	0.003	22.6	16.8	23.7	19.4	3111	50.0	160	150	10.2	127	0.938	0.0484	30.1	968	1505
1989	9	0.001	22.9	17.0	24.1	19.6	3141	50.0	160	163	9.6	131	1.021	0.0520	30.7	980	1536
1990	10	0.001	22.9	17.0	24.1	19.6	3169	50.0	160	162	9.7	131	1.014	0.0513	31.0	980	1549
1991	8	0.001	22.8	16.9	24.1	19.5	3202	50.0	160	161	9.8	130	1.006	0.0504	31.2	977	1561
1993	10	0.001	23.5	17.4	24.8	20.1	3000	50.0	160	255	6.5	170	1.594	0.0849	30.2	1006	1509
1994	3	0.000	23.5	17.4	24.8	20.1	3000	50.0	160	255	6.5	170	1.594	0.0847	30.2	1005	1508
1995	0	0.000	22.9	16.9	24.4	19.6	3000	50.0	160	255	6.5	170	1.591	0.0838	29.5	982	1474

PERCENT OF Two-Cylinder Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL		METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	50.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	40.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	61.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	66.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	90.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	90.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	91.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	89.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	92.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	0.0	91.4	8.6	22.4	0.0	22.4	77.6	0.0	0.0
1985	0.0	0.0	87.2	12.8	14.6	14.6	0.0	85.4	0.0	0.0
1986	0.0	0.0	82.4	17.6	100.0	100.0	0.0	0.0	0.0	0.0
1987	0.0	0.0	85.5	14.5	100.0	100.0	0.0	0.0	0.0	0.0
1988	0.0	0.0	86.2	13.8	100.0	100.0	0.0	0.0	0.0	0.0
1989	0.0	0.0	74.1	25.9	100.0	100.0	0.0	0.0	0.0	0.0
1990	0.0	0.0	72.8	27.2	100.0	100.0	0.0	0.0	0.0	0.0
1991	0.0	0.0	74.7	25.3	100.0	100.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	84.8	15.2	100.0	100.0	0.0	0.0	0.0	0.0
1994	0.0	0.0	88.0	12.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	87.6	12.4	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix K

Table K-3

Characteristics of 1975 to 2004 Three-Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	----> ADJ HWY	55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1985	37	0.003	57.4	46.7	51.5	48.8	1750	82.6	61	48	15.7	96	0.787	0.0273	42.8	4037	3533
1986	81	0.005	55.9	45.8	49.7	47.4	1750	84.6	61	46	16.3	95	0.758	0.0264	42.3	4080	3570
1987	78	0.005	50.8	41.4	45.3	43.1	1878	84.8	63	51	16.2	96	0.810	0.0270	40.8	3707	3457
1988	103	0.007	47.2	38.5	42.2	40.1	1866	86.6	65	54	15.4	98	0.824	0.0285	38.0	3537	3285
1989	85	0.006	47.5	39.0	42.0	40.3	1975	90.9	64	55	15.9	97	0.843	0.0275	40.4	3771	3673
1990	46	0.004	48.7	39.9	43.1	41.3	2021	87.9	63	54	16.2	96	0.854	0.0266	42.7	3764	3767
1991	111	0.009	48.2	39.3	43.1	40.9	2008	85.5	62	56	15.6	98	0.907	0.0279	41.8	3592	3592
1992	111	0.009	48.6	39.5	43.6	41.2	1984	87.6	61	55	15.8	97	0.902	0.0277	41.5	3688	3647
1993	88	0.007	51.1	41.7	45.6	43.4	1979	88.6	61	56	15.5	98	0.906	0.0281	43.7	3937	3877
1994	100	0.007	50.0	40.6	44.7	42.3	1981	91.7	61	55	15.7	97	0.904	0.0279	42.7	3961	3911
1995	29	0.002	54.5	44.0	49.4	46.3	2000	99.9	61	55	15.7	97	0.902	0.0275	46.3	4625	4625
1996	25	0.002	54.8	44.5	49.2	46.5	2000	99.9	61	55	15.7	97	0.902	0.0275	46.5	4651	4651
1997	13	0.001	54.4	44.0	49.3	46.2	2000	90.5	61	55	15.7	97	0.902	0.0275	46.2	4185	4185
1998	11	0.001	53.6	42.8	49.5	45.6	2000	89.7	60	55	15.7	97	0.917	0.0274	45.6	4085	4085
2000	11	0.001	61.6	49.5	56.4	52.4	2000	68.1	61	61	13.2	100	1.005	0.0306	54.6	3509	3509
2001	3	0.000	71.2	58.9	62.3	60.4	2111	50.0	61	66	14.3	102	1.083	0.0309	63.8	3032	3188
2003	1	0.000	69.0	57.8	59.3	58.5	2167	50.0	61	66	14.8	101	1.076	0.0297	63.4	2934	3168
2004	1	0.000	68.5	57.6	58.3	57.9	2175	50.0	61	66	14.9	101	1.074	0.0300	63.0	2904	3150

PERCENT OF Three-Cylinder Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1985	100.0	0.0	90.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	100.0	0.0	64.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1987	100.0	0.0	73.5	0.0	8.6	8.6	0.0	91.4	0.0	0.0
1988	89.0	11.0	76.5	0.0	14.7	13.2	1.5	85.3	0.0	0.0
1989	100.0	0.0	64.3	0.0	70.5	13.0	57.5	29.5	0.0	0.0
1990	89.0	11.0	77.7	0.0	94.3	24.2	70.1	5.7	0.0	0.0
1991	94.5	5.5	61.0	0.0	97.5	7.8	89.7	2.5	0.0	0.0
1992	99.6	0.4	50.1	0.0	99.3	1.9	97.4	0.7	0.0	0.0
1993	97.7	2.3	69.2	0.0	100.0	4.6	95.4	0.0	0.0	0.0
1994	100.0	0.0	53.9	0.0	100.0	2.4	97.6	0.0	0.0	0.0
1995	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1996	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1997	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
1998	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0
2000	52.4	0.0	100.0	0.0	100.0	52.4	47.6	0.0	0.0	52.4
2001	100.0	0.0	55.8	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	100.0	0.0	33.2	0.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	100.0	0.0	30.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix K

Table K-4

Characteristics of 1975 to 2004 Four-Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1805	0.177	24.3	18.7	23.8	20.7	2651		112	79	15.1	102	0.716	0.0297	27.6		
1976	2017	0.164	26.5	20.5	25.8	22.6	2613		111	77	15.2	102	0.706	0.0295	29.7		
1977	2287	0.162	28.7	22.4	27.6	24.4	2523	86.8	106	78	14.6	103	0.742	0.0307	31.2	2178	2718
1978	2926	0.203	28.3	22.3	26.7	24.1	2511	88.9	108	77	14.7	103	0.727	0.0307	30.7	2196	2731
1979	3157	0.227	27.1	21.2	25.7	23.1	2564	90.1	110	77	14.9	102	0.707	0.0299	29.8	2121	2695
1980	4511	0.399	28.1	22.0	26.8	23.9	2573	93.0	116	78	14.8	102	0.681	0.0302	31.0	2267	2891
1981	4469	0.423	29.8	23.4	28.3	25.4	2555	97.7	115	79	14.6	103	0.693	0.0308	32.7	2515	3192
1982	4251	0.437	30.9	24.1	29.8	26.3	2595	97.8	114	78	14.9	102	0.686	0.0299	34.4	2609	3367
1983	4158	0.404	31.2	24.4	29.8	26.6	2622	101.2	118	81	14.7	103	0.694	0.0307	35.2	2737	3556
1984	5744	0.410	31.4	24.4	30.2	26.7	2655	100.3	119	85	14.3	105	0.718	0.0319	35.8	2720	3586
1985	5865	0.406	31.5	24.6	30.3	26.9	2671	101.7	120	90	13.8	107	0.752	0.0335	36.1	2771	3679
1986	6462	0.421	31.3	24.4	30.1	26.7	2719	102.5	121	91	13.9	106	0.753	0.0332	36.5	2764	3741
1987	6679	0.449	31.1	24.3	29.9	26.5	2732	102.1	121	92	13.8	107	0.772	0.0336	36.5	2733	3720
1988	6333	0.414	31.7	24.8	30.4	27.0	2739	101.8	118	95	13.6	108	0.805	0.0343	37.2	2784	3790
1989	5671	0.392	31.1	24.2	30.1	26.5	2794	101.5	120	100	13.1	110	0.839	0.0357	37.2	2724	3780
1990	4925	0.390	30.7	23.8	29.7	26.1	2857	100.8	122	108	12.6	112	0.901	0.0377	37.5	2660	3783
1991	4843	0.385	30.8	23.9	30.0	26.3	2846	100.9	120	108	12.5	113	0.913	0.0379	37.6	2686	3801
1992	3946	0.324	30.9	23.8	30.3	26.4	2885	100.7	120	112	12.3	114	0.947	0.0388	38.2	2689	3854
1993	4267	0.323	31.6	24.3	31.1	27.0	2866	101.9	119	110	12.4	113	0.930	0.0382	38.8	2778	3958
1994	4190	0.300	31.6	24.2	31.3	27.0	2899	102.0	120	113	12.3	114	0.955	0.0390	39.3	2781	4010
1995	4620	0.305	32.2	24.6	32.1	27.5	2889	102.7	118	120	11.7	117	1.016	0.0413	39.9	2851	4093
1996	3982	0.303	31.6	24.1	31.6	27.0	2936	102.8	121	123	11.6	118	1.023	0.0419	39.8	2805	4093
1997	4487	0.310	31.8	24.2	31.9	27.1	2946	102.4	121	124	11.5	118	1.024	0.0420	40.1	2802	4109
1998	4094	0.283	32.0	24.3	32.1	27.3	3015	103.4	122	127	11.4	118	1.044	0.0421	41.2	2845	4271
1999	4057	0.266	31.4	23.9	31.6	26.9	3072	103.7	123	129	11.5	118	1.049	0.0419	41.3	2805	4291
2000	4400	0.265	31.2	23.8	31.2	26.7	3072	104.4	123	130	11.4	119	1.063	0.0424	41.1	2807	4294
2001	4180	0.268	31.7	24.2	31.7	27.1	3102	104.9	124	132	11.4	119	1.067	0.0425	42.3	2880	4443
2002	4330	0.269	31.5	24.1	31.4	26.9	3135	106.7	126	138	11.1	121	1.099	0.0440	42.4	2903	4532
2003	3947	0.253	32.3	24.7	32.2	27.6	3146	104.8	136	141	11.0	122	1.115	0.0447	43.8	2930	4595
2004	4172	0.251	32.5	24.8	32.6	27.8	3135	106.7	126	143	10.8	123	1.145	0.0456	43.9	3005	4695

PERCENT OF Four-Cylinder Cars:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI CARB			DSL	FOUR VALVE
1975	25.2	0.0	68.9	0.0	14.4	14.4	0.0	84.8	0.8	0.0
1976	22.0	0.0	63.9	0.0	6.7	6.7	0.0	92.7	0.6	0.0
1977	28.3	0.0	69.5	0.0	11.9	11.9	0.0	86.3	1.8	0.0
1978	31.8	0.0	67.4	0.0	10.4	10.4	0.0	87.8	1.7	0.0
1979	33.5	1.2	65.9	0.0	7.0	7.0	0.0	90.9	2.1	0.0
1980	44.8	1.0	60.3	0.0	9.1	9.1	0.0	87.3	3.6	0.0
1981	60.6	0.9	55.2	1.7	7.5	7.5	0.0	88.5	4.0	0.0
1982	72.1	0.9	49.5	21.4	18.7	7.5	11.2	78.7	2.6	0.0
1983	76.2	5.1	45.0	26.2	32.7	11.7	21.0	66.3	1.0	0.0
1984	81.3	1.4	39.9	30.4	43.7	15.4	28.3	54.7	1.6	0.0
1985	84.0	3.7	36.7	31.8	52.3	18.7	33.6	46.9	0.8	0.0
1986	89.5	1.5	36.5	37.0	63.3	24.4	38.9	36.3	0.4	2.2
1987	92.0	1.5	34.4	43.0	68.1	24.9	43.2	31.8	0.1	7.4
1988	94.1	1.0	35.2	50.3	78.5	32.7	45.9	21.5	0.0	15.1
1989	93.2	1.5	31.8	53.5	84.9	43.7	41.3	15.0	0.1	19.2
1990	93.2	1.5	30.6	57.9	98.2	62.9	35.3	1.7	0.0	39.6
1991	92.5	2.1	31.2	60.9	99.9	68.9	31.0	0.0	0.1	42.9
1992	88.5	1.2	30.1	61.4	100.0	86.6	13.4	0.0	0.0	49.0
1993	94.1	2.0	29.3	62.9	100.0	88.1	11.9	0.0	0.0	46.5
1994	97.1	0.7	27.4	67.1	100.0	92.1	7.9	0.0	0.0	56.7
1995	90.2	2.2	27.4	70.7	100.0	98.3	1.7	0.0	0.0	73.2
1996	95.9	2.5	24.0	73.8	99.9	98.3	1.5	0.0	0.1	76.3
1997	95.8	2.8	21.4	77.3	99.9	98.7	1.2	0.0	0.1	74.0
1998	95.6	3.0	19.3	80.1	99.7	99.7	0.0	0.0	0.3	78.2
1999	96.0	3.1	17.6	81.2	99.8	99.6	0.2	0.0	0.2	73.4
2000	95.2	2.9	17.0	80.7	99.5	99.5	0.0	0.0	0.5	77.8
2001	95.9	3.1	17.2	80.7	99.5	99.5	0.0	0.0	0.5	78.3
2002	95.2	3.7	17.2	81.7	99.2	99.2	0.0	0.0	0.8	78.8
2003	96.8	1.8	15.1	83.3	99.2	99.2	0.0	0.0	0.8	84.5
2004	95.1	3.8	18.3	77.7	99.5	99.5	0.0	0.0	0.5	90.1

# Appendix K

Table K-5

Characteristics of 1975 to 2004 Five-Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	5	0.000	26.8	21.5	24.5	22.8	3500		183	77	19.3	95	0.420	0.0220	39.8		
1976	12	0.001	24.4	20.0	21.7	20.7	4000		183	77	21.5	93	0.421	0.0192	41.4		
1977	12	0.001	24.9	20.7	21.6	21.1	4000	105.0	183	77	21.5	93	0.421	0.0192	42.2	2214	4428
1978	39	0.003	20.9	16.5	19.6	17.8	3411	103.6	152	102	15.1	106	0.690	0.0305	31.5	1873	3249
1979	43	0.003	22.8	18.4	20.7	19.4	3596	106.0	162	100	16.1	104	0.636	0.0283	35.9	2090	3818
1980	66	0.006	23.8	18.7	22.6	20.3	3357	105.3	152	92	16.3	102	0.630	0.0280	35.4	2208	3744
1981	59	0.006	25.4	20.1	23.8	21.6	3358	105.3	155	98	15.6	104	0.650	0.0296	37.4	2330	3971
1982	58	0.006	26.9	21.5	24.7	22.9	3601	105.8	163	114	14.3	108	0.705	0.0318	42.3	2460	4501
1983	64	0.006	27.4	22.0	25.1	23.3	3660	106.1	165	114	14.5	108	0.696	0.0312	43.6	2505	4638
1984	116	0.008	24.6	19.4	23.3	21.0	3326	110.3	148	109	13.9	109	0.748	0.0329	35.8	2334	3929
1985	99	0.007	24.0	18.9	22.8	20.5	3360	110.2	151	117	13.3	111	0.788	0.0351	34.9	2265	3837
1986	71	0.005	23.3	18.0	22.7	19.9	3035	111.0	136	116	12.3	114	0.854	0.0381	30.3	2213	3368
1987	44	0.003	23.9	18.5	23.2	20.4	3095	110.7	139	127	11.7	117	0.914	0.0406	31.9	2269	3523
1988	18	0.001	24.3	18.7	23.9	20.7	3047	104.6	140	129	11.4	119	0.919	0.0418	31.8	2177	3322
1989	15	0.001	23.8	18.4	23.1	20.3	3415	108.5	140	135	12.0	117	0.968	0.0391	34.7	2204	3777
1990	18	0.001	23.9	18.5	23.2	20.4	3407	105.1	141	138	11.8	118	0.980	0.0401	35.0	2162	3693
1991	15	0.001	24.5	18.7	24.6	21.0	3460	106.7	142	141	11.9	119	1.001	0.0403	36.9	2276	3949
1992	27	0.002	26.1	20.0	25.8	22.3	3497	100.9	150	170	10.3	129	1.135	0.0485	39.2	2266	3963
1993	41	0.003	27.1	20.4	27.6	23.1	3509	108.2	149	169	10.3	128	1.133	0.0480	40.7	2511	4405
1994	54	0.004	26.1	19.7	26.8	22.3	3504	114.7	147	184	9.7	134	1.252	0.0523	39.1	2564	4491
1995	60	0.004	26.5	19.8	27.6	22.7	3512	118.6	146	185	9.6	134	1.271	0.0527	39.9	2692	4724
1996	84	0.006	26.3	19.8	27.1	22.5	3500	115.6	148	180	9.8	133	1.221	0.0514	39.4	2603	4555
1997	51	0.004	26.2	19.6	27.2	22.4	3500	117.1	148	181	9.7	133	1.223	0.0517	39.3	2630	4602
1998	97	0.007	25.7	19.3	26.4	21.9	3609	120.1	148	185	9.8	133	1.251	0.0513	39.6	2636	4762
1999	64	0.004	26.2	19.8	26.8	22.4	3663	121.2	148	180	10.1	131	1.213	0.0491	41.0	2720	4973
2000	60	0.004	26.0	19.5	26.7	22.2	3667	121.3	148	182	10.0	131	1.233	0.0496	40.7	2698	4942
2001	82	0.005	25.9	19.8	25.9	22.1	3745	121.3	148	195	9.7	135	1.321	0.0520	41.6	2690	5033
2002	77	0.005	27.0	20.4	27.4	23.1	3769	118.8	148	191	9.9	133	1.287	0.0506	43.4	2737	5170
2003	68	0.004	26.0	19.6	26.5	22.2	3749	119.5	149	213	9.0	141	1.431	0.0569	41.7	2652	4987
2004	80	0.005	26.8	20.2	27.6	22.9	3801	119.4	151	202	9.6	136	1.337	0.0529	43.7	2742	5213

PERCENT OF Five-Cylinder Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING			FOUR		
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
1978	58.9	0.0	8.1	0.0	58.9	58.9	0.0	0.0	41.1	0.0
1979	40.4	0.0	8.9	0.0	38.0	38.0	0.0	0.0	62.0	0.0
1980	56.6	0.0	18.5	0.0	41.9	41.9	0.0	0.0	58.1	0.0
1981	51.0	0.0	21.5	0.0	40.8	40.8	0.0	0.0	59.2	0.0
1982	37.1	0.0	11.0	0.0	35.3	35.3	0.0	0.0	64.7	0.0
1983	32.2	0.8	11.7	0.0	29.0	29.0	0.0	0.0	71.0	0.0
1984	65.8	2.6	18.2	0.0	68.4	68.4	0.0	0.0	31.6	0.0
1985	63.1	4.1	15.6	0.0	67.3	67.3	0.0	0.0	32.7	0.0
1986	84.9	12.6	28.4	0.0	97.5	97.5	0.0	0.0	2.5	0.0
1987	70.4	24.0	36.5	0.0	94.4	94.4	0.0	0.0	5.6	0.0
1988	60.5	36.0	56.1	0.0	96.5	96.5	0.0	0.0	3.5	0.0
1989	86.8	10.9	29.2	0.0	97.7	97.7	0.0	0.0	2.3	0.0
1990	74.5	19.0	30.8	0.0	93.5	93.5	0.0	0.0	6.5	13.1
1991	69.0	16.4	24.5	55.2	85.4	85.4	0.0	0.0	14.6	13.8
1992	88.6	1.1	17.1	72.5	89.7	89.7	0.0	0.0	10.3	86.6
1993	93.3	1.8	15.7	79.4	100.0	100.0	0.0	0.0	0.0	100.0
1994	99.1	0.9	9.8	90.2	100.0	100.0	0.0	0.0	0.0	100.0
1995	97.6	2.4	8.7	91.3	100.0	100.0	0.0	0.0	0.0	100.0
1996	100.0	0.0	4.8	95.2	100.0	100.0	0.0	0.0	0.0	100.0
1997	100.0	0.0	3.2	96.8	100.0	100.0	0.0	0.0	0.0	100.0
1998	78.6	21.4	3.3	96.7	100.0	100.0	0.0	0.0	0.0	100.0
1999	72.6	27.4	2.6	97.4	100.0	100.0	0.0	0.0	0.0	100.0
2000	74.9	25.1	1.9	98.1	100.0	100.0	0.0	0.0	0.0	100.0
2001	67.1	32.9	2.6	97.4	100.0	100.0	0.0	0.0	0.0	100.0
2002	73.2	26.8	1.7	98.3	100.0	100.0	0.0	0.0	0.0	100.0
2003	65.5	34.5	11.2	88.8	100.0	100.0	0.0	0.0	0.0	100.0
2004	59.5	40.5	15.3	84.7	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix K

Table K-6

Characteristics of 1975 to 2004 Six-Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	1533	0.150	18.4	14.6	17.2	15.7	3625		225	105	15.7	105	0.485	0.0295	28.5		
1976	1935	0.157	19.3	15.4	17.9	16.4	3715		231	100	16.7	103	0.445	0.0272	30.6		
1977	1851	0.131	19.6	15.6	18.2	16.7	3753	106.6	229	105	16.1	104	0.471	0.0284	31.4	1782	3364
1978	2325	0.161	20.2	15.9	19.2	17.2	3482	108.6	221	107	14.8	107	0.495	0.0310	30.0	1878	3273
1979	2187	0.158	20.4	16.1	19.2	17.4	3421	108.8	217	109	14.4	108	0.507	0.0319	29.7	1893	3245
1980	2644	0.234	21.6	16.9	20.6	18.4	3332	111.0	213	110	13.9	109	0.530	0.0333	30.7	2050	3411
1981	2394	0.227	22.6	17.6	21.7	19.2	3382	111.6	215	110	14.1	108	0.522	0.0328	32.6	2153	3650
1982	2080	0.214	23.0	17.7	22.5	19.6	3404	112.9	213	114	13.8	110	0.548	0.0337	33.5	2230	3802
1983	1858	0.180	23.8	18.3	23.5	20.3	3373	111.0	211	116	13.6	111	0.565	0.0345	34.3	2265	3824
1984	2455	0.175	24.1	18.5	23.8	20.5	3364	111.3	205	117	13.4	111	0.586	0.0350	34.6	2291	3854
1985	2498	0.173	24.1	18.2	24.3	20.6	3387	111.8	206	124	12.9	114	0.617	0.0367	34.8	2304	3902
1986	2694	0.175	24.9	18.8	25.6	21.3	3377	112.0	200	134	12.1	117	0.683	0.0398	36.0	2399	4058
1987	2489	0.167	25.1	18.7	26.3	21.5	3414	112.9	198	143	11.6	120	0.733	0.0418	36.7	2437	4162
1988	2985	0.195	25.9	19.2	27.1	22.1	3397	113.6	193	142	11.5	120	0.744	0.0418	37.7	2528	4295
1989	3157	0.218	25.7	19.1	27.0	22.0	3423	114.8	194	146	11.4	121	0.762	0.0428	37.7	2531	4332
1990	2989	0.237	25.4	18.9	26.9	21.8	3504	114.0	197	150	11.4	122	0.773	0.0430	38.2	2493	4367
1991	2635	0.210	25.3	18.8	26.7	21.7	3490	113.6	197	156	11.0	124	0.796	0.0448	37.9	2472	4315
1992	3067	0.252	25.4	18.8	27.0	21.7	3500	114.3	199	158	10.9	125	0.810	0.0453	38.0	2491	4361
1993	3255	0.246	25.8	19.1	27.1	22.1	3488	113.9	199	158	10.9	125	0.805	0.0454	38.5	2522	4400
1994	3126	0.224	25.6	19.0	27.0	21.9	3533	113.2	198	159	10.9	125	0.812	0.0450	38.7	2485	4389
1995	3667	0.242	26.0	19.2	27.8	22.3	3532	113.1	195	172	10.3	129	0.888	0.0487	39.4	2529	4464
1996	3020	0.230	26.1	19.3	27.7	22.3	3552	113.6	194	172	10.3	129	0.894	0.0485	39.7	2541	4514
1997	3007	0.208	25.9	19.1	27.6	22.2	3574	114.5	197	179	10.1	131	0.918	0.0502	39.7	2544	4549
1998	3092	0.214	26.2	19.3	28.0	22.4	3542	113.3	194	180	10.0	132	0.934	0.0507	39.8	2545	4512
1999	3589	0.236	26.2	19.3	27.8	22.4	3577	113.2	192	186	9.8	134	0.980	0.0520	40.1	2541	4549
2000	3910	0.236	26.3	19.5	27.9	22.5	3585	101.4	191	189	9.7	135	1.001	0.0528	40.4	2290	4120
2001	3463	0.222	26.3	19.5	27.8	22.5	3586	112.9	191	194	9.5	136	1.025	0.0540	40.5	2554	4582
2002	3273	0.203	26.6	19.8	27.9	22.8	3606	113.0	195	200	9.3	138	1.036	0.0554	41.1	2585	4658
2003	3034	0.194	26.8	19.9	28.2	23.0	3623	112.2	194	204	9.1	140	1.061	0.0565	41.7	2589	4688
2004	3572	0.215	26.6	19.7	28.0	22.8	3691	113.7	200	208	9.2	140	1.047	0.0564	42.1	2601	4802

PERCENT OF Six-Cylinder Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL FI	METERING			FOUR VALVE	
	FRONT	4WD	MANUAL	LOCK		PORT	TBI	CARB		
1975	0.0	0.0	19.3	0.0	8.3	8.3	0.0	91.7	0.0	0.0
1976	0.0	0.0	15.2	0.0	4.7	4.7	0.0	95.3	0.0	0.0
1977	0.0	0.0	11.9	0.0	6.7	6.7	0.0	93.3	0.0	0.0
1978	0.0	0.0	9.1	8.3	5.3	5.3	0.0	94.7	0.0	0.0
1979	0.5	0.0	9.1	8.2	6.9	6.9	0.0	93.1	0.0	0.0
1980	22.0	1.5	8.2	25.7	4.3	4.3	0.0	95.5	0.2	0.0
1981	14.2	0.8	5.4	58.8	6.8	6.8	0.0	92.9	0.3	0.0
1982	19.5	1.1	5.3	89.3	17.8	9.8	8.0	79.6	2.6	0.0
1983	22.4	1.7	6.6	90.1	12.3	12.3	0.0	85.7	2.0	0.0
1984	31.5	0.9	6.1	91.9	29.8	21.0	8.8	68.8	1.4	0.0
1985	48.6	0.0	6.3	92.7	62.7	41.1	21.6	36.7	0.6	0.0
1986	63.4	0.3	6.9	91.1	80.1	64.7	15.4	19.6	0.3	1.1
1987	73.0	0.2	7.9	89.2	96.7	88.8	7.9	2.5	0.8	4.1
1988	83.8	0.2	5.8	92.5	99.9	97.6	2.3	0.1	0.0	5.3
1989	84.1	0.3	5.0	93.0	100.0	99.8	0.2	0.0	0.0	6.1
1990	86.3	0.1	3.9	94.3	100.0	99.8	0.1	0.0	0.0	8.3
1991	87.8	0.4	4.3	93.6	99.9	99.9	0.0	0.0	0.1	9.9
1992	88.6	1.3	4.2	93.1	100.0	99.9	0.1	0.0	0.0	12.2
1993	88.2	0.3	4.3	93.8	100.0	100.0	0.0	0.0	0.0	19.0
1994	86.4	0.2	4.3	94.2	100.0	100.0	0.0	0.0	0.0	20.4
1995	87.4	0.2	4.4	93.9	99.8	99.8	0.0	0.0	0.2	29.8
1996	88.9	0.7	4.4	94.3	99.9	99.9	0.0	0.0	0.1	34.1
1997	87.8	0.6	3.5	96.5	99.9	99.9	0.0	0.0	0.1	35.5
1998	87.8	1.1	4.0	95.9	99.9	99.9	0.0	0.0	0.1	38.1
1999	87.9	1.1	4.0	95.8	99.9	99.9	0.0	0.0	0.1	46.3
2000	85.7	1.0	5.0	94.9	100.0	100.0	0.0	0.0	0.0	49.1
2001	82.1	3.1	4.9	94.9	100.0	100.0	0.0	0.0	0.0	44.5
2002	83.3	4.0	4.1	95.6	100.0	100.0	0.0	0.0	0.0	48.5
2003	77.1	4.5	5.6	94.1	100.0	100.0	0.0	0.0	0.0	52.8
2004	77.1	5.5	6.6	92.5	100.0	100.0	0.0	0.0	0.0	50.0



# Appendix K

Table K-7

Characteristics of 1975 to 2004 Eight-Cylinder Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1975	4840	0.473	13.4	10.5	12.9	11.5	4732		376	167	13.4	117	0.446	0.0354	27.3		
1976	5728	0.464	15.1	11.9	14.4	12.9	4689		368	165	13.4	116	0.448	0.0351	30.3		
1977	7132	0.505	16.2	12.7	15.3	13.8	4450	119.0	348	158	13.2	116	0.455	0.0356	30.8	1651	3665
1978	5882	0.407	17.2	13.4	16.7	14.7	4166	119.2	335	154	12.8	117	0.460	0.0371	30.8	1777	3680
1979	5354	0.386	17.6	13.8	16.7	15.0	4060	120.6	324	149	12.9	116	0.460	0.0368	30.6	1826	3698
1980	2169	0.192	19.1	14.7	18.7	16.3	3920	120.6	309	135	13.6	113	0.439	0.0345	32.4	1999	3939
1981	1778	0.168	20.2	15.4	20.3	17.3	3973	123.0	307	133	14.0	112	0.440	0.0337	34.9	2168	4331
1982	1377	0.141	20.3	15.3	20.7	17.3	3940	123.4	305	138	13.5	114	0.457	0.0354	34.6	2169	4320
1983	1859	0.180	20.1	15.1	20.6	17.2	3946	125.0	298	143	12.9	115	0.482	0.0364	34.0	2154	4274
1984	2316	0.165	20.3	15.3	20.9	17.4	3913	122.3	300	144	12.8	116	0.483	0.0371	34.1	2130	4202
1985	2229	0.154	21.7	16.3	22.4	18.6	3895	122.8	296	151	12.4	118	0.509	0.0389	36.2	2284	4471
1986	1651	0.107	22.5	16.8	23.5	19.2	3813	120.2	299	152	12.0	120	0.511	0.0402	36.7	2321	4452
1987	1387	0.093	22.2	16.6	23.1	19.0	3846	120.2	299	155	12.0	120	0.520	0.0407	36.5	2290	4430
1988	1247	0.082	22.6	16.8	23.7	19.3	3854	121.5	301	164	11.6	123	0.544	0.0430	37.3	2357	4577
1989	1070	0.074	22.7	16.8	24.0	19.4	3831	121.5	300	160	11.6	122	0.535	0.0423	37.3	2368	4572
1990	812	0.064	22.3	16.5	23.7	19.1	3947	121.4	294	173	11.3	125	0.597	0.0441	37.8	2330	4628
1991	905	0.072	22.8	16.8	24.3	19.5	3947	122.0	298	198	10.0	134	0.669	0.0504	38.5	2388	4746
1992	951	0.078	22.9	16.9	24.4	19.6	4006	124.1	295	208	9.8	136	0.714	0.0522	39.5	2452	4938
1993	791	0.060	22.8	16.7	24.6	19.5	4010	123.8	296	215	9.6	139	0.736	0.0542	39.2	2430	4903
1994	933	0.067	22.9	16.9	24.5	19.6	3989	121.2	292	225	9.2	142	0.776	0.0566	39.2	2385	4789
1995	1013	0.067	22.9	16.8	24.7	19.6	4005	120.3	289	230	9.0	143	0.803	0.0575	39.3	2365	4760
1996	775	0.059	23.3	17.0	25.2	19.9	4018	122.3	289	241	8.7	147	0.841	0.0602	40.1	2443	4926
1997	780	0.054	23.2	17.1	24.9	19.9	4001	122.2	279	247	8.5	149	0.891	0.0620	39.8	2431	4869
1998	673	0.047	23.1	17.1	24.6	19.8	3971	117.6	280	256	8.2	153	0.918	0.0647	39.3	2330	4645
1999	666	0.044	23.2	17.1	24.8	19.9	3968	119.0	283	251	8.4	151	0.890	0.0634	39.5	2370	4720
2000	743	0.045	23.3	17.2	24.9	20.0	3986	113.6	281	277	7.7	159	0.989	0.0696	39.9	2277	4558
2001	674	0.043	23.4	17.2	25.1	20.1	3994	116.6	279	261	8.2	154	0.939	0.0657	40.1	2342	4700
2002	618	0.038	23.5	17.4	24.8	20.1	4002	109.3	281	270	8.0	157	0.964	0.0679	40.2	2205	4434
2003	650	0.042	23.0	17.0	24.5	19.7	4226	117.0	281	270	8.3	154	0.963	0.0647	41.8	2321	4954
2004	724	0.044	23.1	17.1	24.4	19.7	4178	114.2	280	278	8.1	157	0.999	0.0675	41.3	2262	4772

PERCENT OF Eight-Cylinder Cars:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI CARB			DSL	FOUR VALVE
1975	1.7	0.0	1.6	0.0	0.7	0.7	0.0	99.3	0.0	0.0
1976	2.0	0.0	1.2	0.0	1.4	1.4	0.0	98.6	0.0	0.0
1977	1.8	0.0	1.0	0.0	1.1	1.1	0.0	98.9	0.0	0.0
1978	2.1	0.0	1.2	9.5	1.9	1.9	0.0	97.5	0.6	0.0
1979	3.7	0.0	1.4	12.9	2.2	2.2	0.0	95.3	2.6	0.0
1980	7.6	0.0	0.8	40.5	4.4	1.4	3.0	85.8	9.8	0.0
1981	8.8	0.0	1.1	80.4	13.8	0.8	13.0	69.5	16.8	0.0
1982	5.5	0.0	3.9	90.8	10.4	1.3	9.1	77.9	11.7	0.0
1983	9.6	0.0	3.5	95.5	35.4	1.0	34.4	62.4	2.2	0.0
1984	9.3	0.0	3.2	95.8	37.6	5.2	32.5	61.7	0.7	0.0
1985	18.2	0.0	2.5	96.0	47.4	5.1	42.4	52.5	0.1	0.0
1986	12.2	0.0	4.3	93.2	48.4	36.2	12.2	51.6	0.0	0.2
1987	14.2	0.0	4.4	92.4	55.9	42.0	13.9	44.1	0.0	0.2
1988	16.4	0.0	6.2	91.5	76.2	56.4	19.8	23.8	0.0	0.2
1989	21.2	0.0	7.2	90.3	90.9	54.0	36.9	9.1	0.0	0.2
1990	28.4	0.0	6.7	91.4	96.0	85.9	10.1	4.0	0.0	7.8
1991	20.5	0.1	5.1	92.7	100.0	70.9	29.1	0.0	0.0	7.4
1992	21.9	0.0	3.7	94.3	100.0	78.6	21.4	0.0	0.0	8.1
1993	23.2	0.0	5.3	92.8	100.0	84.7	15.3	0.0	0.0	16.6
1994	19.3	0.0	6.1	92.3	100.0	100.0	0.0	0.0	0.0	21.9
1995	24.1	0.0	6.5	91.4	100.0	100.0	0.0	0.0	0.0	35.3
1996	27.9	0.0	6.7	93.3	100.0	100.0	0.0	0.0	0.0	36.2
1997	28.2	0.3	5.2	94.8	100.0	100.0	0.0	0.0	0.0	44.6
1998	32.4	0.3	7.2	92.8	100.0	100.0	0.0	0.0	0.0	51.7
1999	31.4	0.3	7.8	92.1	100.0	100.0	0.0	0.0	0.0	40.4
2000	22.0	0.8	8.2	91.8	100.0	100.0	0.0	0.0	0.0	47.8
2001	24.1	1.4	9.3	90.7	100.0	100.0	0.0	0.0	0.0	44.0
2002	23.7	1.0	10.9	89.1	100.0	100.0	0.0	0.0	0.0	51.5
2003	15.6	2.5	8.2	91.8	100.0	100.0	0.0	0.0	0.0	34.7
2004	14.8	5.6	10.1	89.9	100.0	100.0	0.0	0.0	0.0	44.4

# Appendix K

Table K-8

Characteristics of 1975 to 2004 Four-Cylinder Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	2	0.000	20.6	16.2	19.6	17.5	3498	118	78	19.1	96	0.654	0.0204	30.7
1976	1	0.000	19.9	15.1	20.1	17.0	3500	120	67	20.9	92	0.557	0.0179	29.8
1977	2	0.000	22.2	17.2	21.5	18.9	3500	120	67	20.8	92	0.557	0.0180	33.1
1978	3	0.000	20.0	15.7	19.1	17.0	3500	120	67	20.9	92	0.558	0.0185	29.8
1979	8	0.001	18.7	14.8	17.6	16.0	3500	120	67	20.9	92	0.558	0.0188	28.0
1980	16	0.001	19.0	14.7	18.6	16.2	3618	120	67	21.4	91	0.558	0.0182	29.4
1981	11	0.001	18.5	14.6	17.4	15.8	3644	120	67	21.6	91	0.558	0.0181	28.7
1982	15	0.002	21.7	17.7	19.4	18.4	3668	111	61	23.4	89	0.549	0.0164	35.6
1983	14	0.001	19.7	15.6	18.4	16.8	3567	118	69	20.9	92	0.582	0.0185	30.3
1984	217	0.015	24.7	19.7	22.8	21.0	3380	136	94	15.8	103	0.694	0.0279	35.7
1985	341	0.024	24.0	19.2	22.1	20.4	3409	142	97	15.5	104	0.690	0.0286	34.9
1986	354	0.023	24.7	19.7	23.0	21.0	3425	146	99	15.4	104	0.681	0.0289	36.1
1987	268	0.018	24.6	19.5	22.9	20.9	3401	143	100	15.2	105	0.701	0.0294	35.7
1988	143	0.009	25.3	20.1	23.5	21.5	3464	145	98	15.7	103	0.677	0.0281	37.4
1989	224	0.016	24.7	19.7	23.0	21.0	3505	149	110	14.7	107	0.742	0.0314	36.9
1990	101	0.008	25.5	20.1	24.1	21.7	3544	149	109	15.0	107	0.736	0.0308	38.6
1991	146	0.012	23.9	18.8	22.7	20.4	3791	148	120	14.5	109	0.813	0.0315	38.6
1992	141	0.012	25.0	19.5	23.8	21.3	3588	145	117	14.1	109	0.812	0.0323	38.1
1993	92	0.007	24.6	19.1	23.8	21.0	3638	147	118	14.2	109	0.809	0.0323	38.2
1994	66	0.005	24.7	19.3	23.8	21.1	3604	149	116	14.4	109	0.782	0.0320	38.0
1995	87	0.006	25.1	19.7	23.8	21.4	3621	143	130	13.2	114	0.921	0.0359	38.6
1996	66	0.005	24.8	19.4	23.9	21.2	3817	142	149	12.1	118	1.050	0.0391	40.5
1997	66	0.005	24.9	19.4	24.0	21.2	3831	142	144	12.5	116	1.008	0.0374	40.7
1998	139	0.010	25.2	19.2	25.3	21.5	3941	165	173	11.1	125	1.047	0.0439	42.5
1999	132	0.009	24.8	18.9	24.8	21.2	3999	166	171	11.4	124	1.027	0.0428	42.4
2000	62	0.004	26.0	19.8	25.9	22.2	4000	148	150	12.5	117	1.013	0.0375	44.3
2001	29	0.002	25.4	19.8	24.4	21.6	4000	148	150	12.5	117	1.013	0.0375	43.3
2002	38	0.002	25.6	19.4	25.9	21.9	4000	148	150	12.5	117	1.013	0.0374	43.8
2003	20	0.001	27.0	20.5	27.2	23.1	4000	148	150	12.5	117	1.013	0.0374	46.1
2004	13	0.001	25.9	19.6	26.2	22.1	4000	148	150	12.5	117	1.013	0.0374	44.2

PERCENT OF Four-Cylinder Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	43.3	0.0	61.1	0.0	0.0	38.9	0.0	0.0
1976	0.0	0.0	84.8	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1977	0.0	0.0	89.9	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1978	0.0	0.0	85.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1979	0.0	0.0	81.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1980	0.0	0.0	82.9	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1981	0.0	0.0	81.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0
1982	0.0	0.0	89.0	0.0	61.7	0.0	0.0	0.0	38.3	0.0
1983	4.2	0.0	76.9	0.0	93.6	0.0	0.0	0.0	6.4	0.0
1984	69.5	0.0	30.2	19.1	30.5	0.0	0.0	68.6	0.9	0.0
1985	76.0	0.9	19.9	15.3	23.1	0.0	0.0	76.9	0.0	0.0
1986	72.0	3.8	17.8	19.9	24.2	21.8	2.4	75.8	0.0	0.0
1987	59.8	8.0	19.9	32.5	41.3	31.1	10.3	58.7	0.0	0.0
1988	67.7	6.2	18.1	27.8	100.0	31.6	68.4	0.0	0.0	0.0
1989	83.9	3.4	9.6	14.2	100.0	46.0	54.0	0.0	0.0	0.0
1990	80.2	6.9	14.1	70.3	100.0	44.7	55.3	0.0	0.0	0.0
1991	34.0	11.2	7.5	90.6	100.0	70.4	29.6	0.0	0.0	0.0
1992	61.9	9.4	11.9	88.1	100.0	62.0	38.0	0.0	0.0	0.0
1993	59.8	4.7	9.8	90.2	100.0	53.1	46.9	0.0	0.0	9.1
1994	66.7	10.1	7.8	92.2	100.0	44.2	55.8	0.0	0.0	29.8
1995	71.1	10.6	1.3	98.7	100.0	67.4	32.6	0.0	0.0	67.4
1996	87.7	1.8	0.1	99.9	100.0	100.0	0.0	0.0	0.0	100.0
1997	92.7	2.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1998	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
1999	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2000	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2001	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2002	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2003	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix K

Table K-9

Characteristics of 1975 to 2004 Five-Cylinder Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1993	11	0.001	21.0	16.7	19.6	17.9	4157	150	109	16.6	103	0.726	0.0260	37.2
1994	0	0.000	20.1	15.8	19.2	17.1	4260	150	109	16.8	102	0.722	0.0238	36.5
1995	2	0.000	19.6	15.5	18.2	16.6	5000	150	109	19.1	98	0.726	0.0215	41.6

PERCENT OF Five-Cylinder Vans:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1993	100.0	0.0	35.7	64.3	100.0	100.0	0.0	0.0	0.0	0.0
1994	100.0	0.0	48.0	52.0	100.0	100.0	0.0	0.0	0.0	0.0
1995	100.0	0.0	43.8	56.2	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix K

Table K-10

Characteristics of 1975 to 2004 Six-Cylinder Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	117	0.011	16.3	13.0	14.9	13.8	3967	271 102	16.9	101	0.380	0.0256	27.8
1976	128	0.010	17.4	14.1	15.6	14.7	4023	271 102	17.1	101	0.380	0.0252	29.9
1977	107	0.008	18.0	14.7	16.1	15.3	4039	278 113	15.9	105	0.408	0.0279	30.9
1978	152	0.011	17.2	14.1	15.3	14.6	4086	280 119	15.3	106	0.430	0.0291	30.0
1979	96	0.007	16.6	13.6	14.7	14.1	4233	263 121	15.5	106	0.465	0.0284	30.1
1980	114	0.010	18.4	14.7	16.9	15.6	4182	266 118	15.6	105	0.449	0.0282	32.7
1981	119	0.011	18.7	15.0	17.1	15.9	4191	268 117	15.9	105	0.438	0.0277	33.3
1982	121	0.012	18.7	15.0	17.3	15.9	4181	266 111	16.5	103	0.419	0.0264	33.4
1983	117	0.011	18.9	15.1	17.4	16.1	4206	265 110	16.7	103	0.418	0.0259	33.9
1984	144	0.010	18.6	14.7	17.4	15.8	4118	272 112	16.2	104	0.413	0.0270	32.8
1985	182	0.013	20.6	16.2	19.6	17.6	4002	269 136	13.8	113	0.509	0.0341	35.4
1986	391	0.025	20.9	16.2	20.2	17.8	4049	237 132	14.2	111	0.574	0.0326	36.1
1987	566	0.038	21.8	17.0	21.1	18.6	3930	219 149	12.5	117	0.703	0.0380	36.7
1988	735	0.048	22.2	17.1	21.8	19.0	3940	213 149	12.5	117	0.722	0.0380	37.4
1989	777	0.054	22.1	17.0	21.7	18.9	3992	212 146	12.8	116	0.713	0.0367	37.8
1990	935	0.074	22.2	17.1	21.8	18.9	4011	208 144	13.0	115	0.705	0.0360	38.0
1991	742	0.059	22.0	17.0	21.6	18.8	4084	212 147	13.0	115	0.706	0.0360	38.5
1992	902	0.074	22.1	17.0	21.8	18.9	4118	213 149	13.0	116	0.711	0.0361	39.0
1993	1174	0.089	22.5	17.2	22.3	19.2	4047	208 152	12.6	117	0.742	0.0376	38.8
1994	1138	0.081	22.3	17.1	22.1	19.0	4083	212 154	12.6	118	0.733	0.0377	38.9
1995	1375	0.091	22.5	17.1	22.6	19.2	4050	221 155	12.4	118	0.711	0.0383	38.9
1996	1230	0.094	22.7	17.2	22.8	19.4	4148	214 167	11.9	121	0.788	0.0405	40.3
1997	1069	0.074	22.5	17.1	22.7	19.2	4178	213 169	11.9	122	0.800	0.0406	40.2
1998	1250	0.086	23.0	17.4	23.4	19.7	4136	214 177	11.4	125	0.826	0.0428	40.7
1999	1202	0.079	22.7	17.1	23.1	19.4	4254	218 178	11.5	124	0.822	0.0420	41.3
2000	1523	0.092	23.1	17.5	23.5	19.8	4234	212 180	11.4	125	0.860	0.0426	41.9
2001	1141	0.073	23.5	17.8	23.9	20.1	4333	214 193	10.9	128	0.910	0.0446	43.7
2002	1140	0.071	23.4	17.7	23.8	20.0	4368	214 199	10.8	129	0.936	0.0456	43.8
2003	1088	0.070	24.0	18.1	24.5	20.5	4321	215 200	10.6	130	0.936	0.0463	44.4
2004	1065	0.064	23.8	17.8	24.6	20.4	4425	217 209	10.5	132	0.971	0.0473	45.2

PERCENT OF Six-Cylinder Vans:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI CARB			DSL	FOUR VALVE
1975	0.0	0.0	16.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	21.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	15.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	14.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	43.1	9.2	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	40.3	33.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	0.0	34.6	35.1	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	27.5	38.3	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	26.6	40.8	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	0.0	22.2	44.4	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	0.0	8.4	71.0	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	0.0	6.3	76.7	60.3	19.1	41.2	39.2	0.5	0.0
1987	25.9	0.0	3.5	86.7	96.9	63.4	33.6	3.1	0.0	0.0
1988	42.7	0.0	2.2	90.7	100.0	70.2	29.8	0.0	0.0	0.0
1989	32.2	0.2	2.1	91.8	100.0	71.0	29.0	0.0	0.0	0.0
1990	54.4	8.1	0.6	96.0	100.0	66.6	33.4	0.0	0.0	0.0
1991	46.5	13.0	0.4	97.4	100.0	68.2	31.8	0.0	0.0	0.0
1992	51.7	6.0	0.3	98.1	100.0	76.9	23.1	0.0	0.0	0.0
1993	55.5	5.2	0.3	97.9	100.0	84.9	15.1	0.0	0.0	0.0
1994	61.3	7.4	0.1	98.3	100.0	85.6	14.4	0.0	0.0	0.0
1995	69.4	10.3	0.0	98.6	100.0	94.6	5.4	0.0	0.0	0.0
1996	79.8	2.6	0.0	98.7	100.0	100.0	0.0	0.0	0.0	0.0
1997	70.9	5.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1998	82.2	3.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	1.2
1999	81.7	3.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	4.2
2000	85.5	3.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	20.0
2001	88.1	2.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	21.9
2002	88.6	3.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	27.6
2003	88.0	5.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	22.4
2004	91.2	3.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	46.5

# Appendix K

Table K-11

Characteristics of 1975 to 2004 Eight-Cylinder Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	338	0.033	12.2	9.9	11.1	10.4	4278	334 158	12.8	117	0.470	0.0368	22.5
1976	372	0.030	12.9	10.3	12.0	11.0	4263	342 161	12.5	119	0.470	0.0378	23.6
1977	405	0.029	14.0	11.4	12.7	11.9	4312	347 163	12.5	119	0.470	0.0379	25.8
1978	470	0.033	13.5	11.0	12.0	11.4	4307	346 159	12.7	117	0.460	0.0370	24.8
1979	376	0.027	12.9	10.5	11.4	10.9	4643	342 152	14.2	113	0.445	0.0327	25.6
1980	111	0.010	14.9	11.9	13.7	12.7	4630	334 152	14.0	113	0.455	0.0325	29.4
1981	114	0.011	16.3	13.0	15.0	13.8	4530	316 148	14.0	112	0.469	0.0323	31.5
1982	175	0.018	16.2	13.0	14.8	13.8	4511	316 153	13.6	114	0.486	0.0337	31.3
1983	251	0.024	17.1	13.6	16.0	14.6	4560	318 152	13.9	113	0.481	0.0333	33.9
1984	315	0.022	16.4	13.0	15.5	14.0	4534	317 154	13.7	114	0.487	0.0339	32.2
1985	332	0.023	15.9	12.6	14.7	13.5	4542	314 157	13.4	115	0.501	0.0346	30.9
1986	300	0.020	16.9	13.4	15.8	14.4	4607	312 155	13.7	114	0.497	0.0336	33.4
1987	279	0.019	16.9	13.2	16.1	14.4	4603	319 167	13.1	118	0.521	0.0362	33.2
1988	255	0.017	17.2	13.4	16.6	14.7	4708	322 168	13.2	117	0.520	0.0357	34.7
1989	276	0.019	17.0	13.2	16.5	14.5	4689	326 174	12.9	119	0.533	0.0373	34.2
1990	226	0.018	17.1	13.2	16.7	14.6	4692	332 186	12.2	123	0.560	0.0398	34.2
1991	145	0.012	17.1	13.1	16.8	14.6	4724	331 186	12.2	123	0.560	0.0394	34.4
1992	178	0.015	17.0	13.1	16.7	14.5	4769	332 196	11.8	125	0.590	0.0414	34.7
1993	164	0.012	17.5	13.4	17.4	14.9	4784	334 202	11.4	127	0.606	0.0423	35.7
1994	191	0.014	17.2	13.2	17.2	14.7	4777	331 207	11.2	128	0.626	0.0435	35.2
1995	197	0.013	17.4	13.3	17.3	14.9	4734	336 199	11.5	126	0.594	0.0421	35.2
1996	113	0.009	17.2	13.1	17.2	14.7	4930	332 219	11.0	130	0.659	0.0445	36.3
1997	130	0.009	18.0	13.7	18.0	15.4	4965	322 228	10.7	132	0.709	0.0459	38.4
1998	100	0.007	17.9	13.5	18.1	15.3	5109	322 231	10.8	132	0.720	0.0453	39.1
1999	131	0.009	17.8	13.4	18.0	15.2	5101	322 233	10.7	133	0.725	0.0457	38.7
2000	107	0.006	17.7	13.5	17.8	15.1	5027	322 237	10.5	134	0.738	0.0472	38.1
2001	68	0.004	17.7	13.5	17.7	15.1	5115	321 238	10.6	134	0.744	0.0465	38.7
2002	64	0.004	17.4	13.4	17.1	14.9	5080	321 241	10.4	135	0.753	0.0473	38.0
2003	183	0.012	17.6	13.4	17.7	15.0	5793	332 275	10.4	138	0.829	0.0473	43.6
2004	81	0.005	18.9	14.6	18.5	16.1	5517	312 264	10.3	137	0.845	0.0477	44.6

PERCENT OF Eight-Cylinder Vans:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI CARB			FOUR DSL VALVE	
1975	0.0	0.0	25.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	19.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	13.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	0.0	12.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	0.0	6.1	6.3	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	0.0	3.3	50.6	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.7	0.0	2.8	63.3	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	0.0	1.4	54.9	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	0.0	1.6	71.3	0.0	0.0	0.0	93.5	6.5	0.0
1984	0.0	0.0	2.2	64.4	0.0	0.0	0.0	98.0	2.0	0.0
1985	0.1	0.0	0.7	67.4	0.1	0.1	0.0	99.1	0.8	0.0
1986	0.1	0.0	0.4	85.7	25.6	25.5	0.1	73.8	0.6	0.0
1987	0.0	0.0	0.2	62.6	66.9	24.4	42.5	32.8	0.3	0.0
1988	0.0	0.0	0.1	72.5	98.5	32.8	65.7	1.0	0.5	0.0
1989	0.0	0.0	0.1	84.1	99.7	31.5	68.1	0.0	0.3	0.0
1990	0.0	0.0	0.0	93.5	99.6	28.8	70.8	0.0	0.4	0.0
1991	0.0	0.0	0.0	98.0	99.5	31.7	67.8	0.0	0.5	0.0
1992	0.0	0.0	0.0	94.5	99.6	53.9	45.7	0.0	0.4	0.0
1993	0.0	0.3	0.0	97.8	100.0	50.5	49.5	0.0	0.0	0.0
1994	0.0	0.0	0.0	94.1	100.0	65.7	34.3	0.0	0.0	0.0
1995	0.0	0.0	0.0	96.1	100.0	45.7	54.3	0.0	0.0	0.0
1996	0.0	0.0	0.0	94.2	100.0	100.0	0.0	0.0	0.0	0.0
1997	0.0	0.0	0.0	95.8	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2003	0.0	61.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2004	0.0	18.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix K

Table K-12 Characteristics of 1975 to 2004 Other Cylinder SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
2002	0	0.000	34.1	40.8	26.9	33.1	3500	122	148	11.4	121	1.213	0.0414	57.9
2003	0	0.000	40.9	40.8	28.4	34.1	3500	122	148	11.4	121	1.207	0.0366	59.7

PERCENT OF Other Cylinder SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
2002	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0
2003	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0

# Appendix K

Table K-13

Characteristics of 1975 to 2004 Four-Cylinder SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	6	0.001	12.0	9.0	12.2	10.2	4000	257 110	15.7	104	0.428	0.0274	20.5
1979	14	0.001	19.0	15.8	16.4	16.1	3032	136 76	17.1	99	0.600	0.0257	24.2
1980	19	0.002	22.8	18.9	19.8	19.3	2893	137 81	15.8	101	0.624	0.0276	27.9
1981	13	0.001	24.4	20.2	21.3	20.7	2941	145 81	15.7	101	0.573	0.0274	30.5
1982	18	0.002	24.0	20.6	19.8	20.3	2557	136 78	15.0	102	0.589	0.0301	25.9
1983	23	0.002	23.7	20.2	19.9	20.0	2647	130 80	15.1	103	0.633	0.0298	26.6
1984	71	0.005	23.6	19.1	21.3	20.0	3118	139 89	15.6	102	0.643	0.0282	31.3
1985	93	0.006	24.3	19.5	22.2	20.6	3325	139 94	15.7	103	0.679	0.0279	34.4
1986	191	0.012	25.2	20.1	23.2	21.4	3355	131 97	15.2	104	0.745	0.0290	36.0
1987	207	0.014	25.2	20.3	23.0	21.4	3130	127 95	14.7	104	0.755	0.0302	33.5
1988	191	0.012	25.0	20.2	22.7	21.3	3123	122 94	14.8	104	0.773	0.0297	33.1
1989	123	0.009	24.0	19.3	21.8	20.4	3226	131 103	14.0	107	0.790	0.0321	32.9
1990	115	0.009	25.0	20.3	22.5	21.2	3100	124 99	14.1	107	0.808	0.0320	33.1
1991	129	0.010	24.0	19.8	21.1	20.3	3228	128 97	14.9	105	0.775	0.0300	33.0
1992	113	0.009	24.4	20.1	21.6	20.7	3035	125 101	13.8	108	0.814	0.0332	31.8
1993	123	0.009	24.3	20.0	21.4	20.6	3058	126 103	13.7	108	0.822	0.0336	31.8
1994	160	0.011	24.7	20.2	22.1	21.0	3045	123 104	13.5	109	0.850	0.0342	32.1
1995	195	0.013	24.9	20.2	22.3	21.1	3005	126 108	13.0	111	0.869	0.0361	31.9
1996	150	0.011	27.5	22.0	25.4	23.4	3028	115 111	12.7	112	0.974	0.0366	35.4
1997	390	0.027	25.8	20.6	23.8	21.9	3289	133 126	12.3	115	0.957	0.0384	36.1
1998	343	0.024	26.3	20.9	24.4	22.3	3391	128 129	12.4	115	1.011	0.0381	38.0
1999	353	0.023	26.6	21.2	24.6	22.6	3443	129 138	11.9	118	1.075	0.0401	39.1
2000	354	0.021	26.2	20.9	24.2	22.3	3467	127 137	12.0	118	1.084	0.0396	38.8
2001	505	0.032	26.4	21.0	24.4	22.4	3461	132 144	11.6	120	1.102	0.0417	39.1
2002	469	0.029	27.4	21.6	25.9	23.3	3477	137 150	11.2	122	1.102	0.0432	40.8
2003	599	0.038	27.1	21.4	25.6	23.1	3538	141 152	11.2	122	1.083	0.0431	41.0
2004	484	0.029	27.6	21.6	26.3	23.5	3556	144 159	10.9	124	1.102	0.0449	41.8

PERCENT OF Four-Cylinder SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL		METERING		FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	32.5	32.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	99.9	100.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	100.0	98.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	38.4	38.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	41.0	44.3	1.3	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	94.3	69.3	25.3	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	91.2	69.4	29.6	32.8	0.0	0.0	65.9	1.3	0.0
1986	0.0	95.6	86.3	13.2	40.5	18.9	21.6	56.8	2.7	0.0
1987	0.0	96.8	85.0	7.7	37.8	18.1	19.7	62.1	0.1	0.0
1988	0.0	97.8	83.3	12.8	46.9	40.1	6.8	53.1	0.0	0.0
1989	0.0	95.6	72.5	27.5	91.9	42.1	49.8	8.1	0.0	0.0
1990	0.0	90.9	83.1	15.9	97.1	36.0	61.1	2.9	0.0	0.0
1991	0.0	60.2	63.3	36.4	98.6	36.0	62.6	1.4	0.0	0.0
1992	0.0	50.9	67.2	32.8	97.4	42.8	54.5	2.6	0.0	0.0
1993	0.0	54.2	63.7	36.3	97.3	50.0	47.3	2.7	0.0	0.0
1994	0.0	53.8	60.8	23.4	100.0	64.6	35.4	0.0	0.0	10.0
1995	0.2	80.3	72.4	27.6	100.0	79.5	20.5	0.0	0.0	2.7
1996	12.0	59.7	45.4	54.6	100.0	100.0	0.0	0.0	0.0	91.2
1997	7.8	65.6	43.1	51.3	100.0	100.0	0.0	0.0	0.0	81.8
1998	13.7	69.6	33.2	66.8	100.0	100.0	0.0	0.0	0.0	89.6
1999	14.9	69.8	27.2	72.8	100.0	100.0	0.0	0.0	0.0	83.1
2000	13.5	66.2	21.7	78.3	100.0	100.0	0.0	0.0	0.0	78.8
2001	20.5	58.6	17.2	82.8	100.0	100.0	0.0	0.0	0.0	74.7
2002	31.3	60.5	17.2	82.3	100.0	100.0	0.0	0.0	0.0	86.5
2003	35.4	62.9	12.3	80.9	100.0	100.0	0.0	0.0	0.0	91.4
2004	33.5	64.8	15.7	77.4	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix K

Table K-14 Characteristics of 1975 to 2004 Five-Cylinder SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
2003	7	0.000	23.5	17.7	24.1	20.1	4500	154	207	10.6	130	1.344	0.0459	45.3
2004	15	0.001	23.6	17.9	23.8	20.1	4713	154	208	11.0	129	1.351	0.0442	47.4

PERCENT OF Five-Cylinder SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
2003	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0
2004	29.1	70.9	0.0	100.0	100.0	100.0	0.0	0.0	0.0	100.0



# Appendix K

Table K-15

Characteristics of 1975 to 2004 Six-Cylinder SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	12	0.001	17.8	14.7	15.5	15.1	3152	237 95	14.7	105	0.398	0.0301	23.6
1976	45	0.004	15.7	12.7	14.3	13.4	3255	253 101	14.3	106	0.399	0.0313	22.1
1977	49	0.003	16.7	13.4	15.2	14.2	3323	253 105	14.1	107	0.412	0.0316	23.8
1978	60	0.004	16.4	13.1	15.1	13.9	3217	255 104	13.8	107	0.406	0.0323	22.5
1979	63	0.005	16.9	13.9	14.8	14.3	3211	257 120	12.4	114	0.466	0.0377	23.0
1980	54	0.005	17.8	14.4	16.0	15.1	3590	258 100	15.5	104	0.393	0.0283	27.2
1981	44	0.004	18.5	14.8	17.2	15.8	3564	266 113	14.0	109	0.428	0.0325	28.0
1982	41	0.004	18.9	14.9	17.9	16.1	3601	264 112	14.3	108	0.425	0.0315	29.1
1983	150	0.015	21.3	16.5	20.8	18.2	3728	206 112	14.8	107	0.563	0.0303	34.2
1984	368	0.026	21.3	16.6	20.5	18.1	3677	188 108	15.1	106	0.590	0.0297	33.6
1985	444	0.031	21.6	16.5	21.5	18.4	3736	178 109	15.2	105	0.617	0.0293	34.6
1986	388	0.025	20.8	16.2	20.0	17.7	3670	182 126	13.4	112	0.701	0.0344	32.5
1987	491	0.033	21.3	16.3	21.0	18.2	3694	198 138	12.7	116	0.709	0.0377	33.6
1988	582	0.038	21.1	16.2	20.7	18.0	3681	211 147	12.0	119	0.706	0.0402	33.2
1989	595	0.041	21.1	16.4	20.4	18.0	3770	231 155	11.7	121	0.680	0.0412	34.0
1990	423	0.034	20.5	15.9	19.9	17.5	3813	219 154	11.9	120	0.716	0.0407	33.4
1991	875	0.070	20.4	15.7	20.1	17.4	4067	233 163	11.9	121	0.704	0.0403	35.5
1992	793	0.065	19.9	15.3	19.6	17.0	4071	230 170	11.6	123	0.743	0.0423	34.7
1993	950	0.072	20.3	15.6	20.0	17.3	4083	234 181	11.0	127	0.777	0.0448	35.5
1994	1130	0.081	19.9	15.4	19.6	17.0	4188	231 180	11.3	125	0.782	0.0433	35.8
1995	1242	0.082	19.8	15.3	19.5	16.9	4205	230 177	11.5	124	0.777	0.0425	35.8
1996	1285	0.098	20.4	15.6	20.3	17.4	4189	241 180	11.3	125	0.751	0.0434	36.6
1997	1331	0.092	20.3	15.7	19.9	17.3	4219	237 180	11.3	125	0.770	0.0431	36.7
1998	1499	0.104	20.6	15.9	20.4	17.6	4190	237 182	11.2	126	0.778	0.0438	37.0
1999	1606	0.105	20.8	16.1	20.2	17.7	4205	231 190	10.8	128	0.837	0.0453	37.3
2000	1751	0.106	20.8	16.1	20.3	17.7	4183	229 187	10.9	128	0.829	0.0449	37.1
2001	1777	0.114	21.2	16.4	20.8	18.1	4131	216 199	10.3	132	0.941	0.0485	37.5
2002	2599	0.161	20.9	16.1	20.6	17.8	4304	222 214	10.1	135	0.972	0.0497	38.5
2003	2126	0.136	21.6	16.5	21.6	18.5	4336	219 222	9.9	137	1.021	0.0512	40.1
2004	2525	0.152	21.7	16.6	21.7	18.6	4375	221 225	9.8	137	1.023	0.0515	40.7

PERCENT OF Six-Cylinder SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
1975	0.0	79.8	69.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	73.8	75.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	63.0	83.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	70.2	84.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	92.9	86.0	0.3	0.0	0.0	0.0	98.8	1.2	0.0
1980	0.0	98.0	83.0	3.9	0.0	0.0	0.0	92.0	8.0	0.0
1981	0.0	98.2	78.4	21.6	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	95.9	77.6	22.4	0.0	0.0	0.0	100.0	0.0	0.0
1983	0.0	86.7	51.3	46.2	0.0	0.0	0.0	100.0	0.0	0.0
1984	0.0	86.1	33.3	43.1	0.0	0.0	0.0	100.0	0.0	0.0
1985	0.0	82.1	30.1	68.6	0.0	0.0	0.0	100.0	0.0	0.0
1986	0.0	86.9	30.0	68.2	68.9	28.4	40.6	31.1	0.0	0.0
1987	0.0	82.1	28.6	69.2	92.1	45.2	46.9	7.9	0.0	0.0
1988	0.0	82.0	27.3	71.0	94.7	56.0	38.7	5.3	0.0	0.0
1989	0.0	82.2	24.6	71.9	94.0	51.6	42.4	6.0	0.0	0.0
1990	0.0	86.4	26.3	72.0	93.7	72.9	20.8	6.3	0.0	0.0
1991	0.0	79.6	17.9	81.3	100.0	66.1	33.9	0.0	0.0	0.0
1992	0.0	75.2	18.6	80.6	100.0	82.5	17.5	0.0	0.0	0.0
1993	0.0	63.4	13.9	85.3	100.0	99.4	0.6	0.0	0.0	0.0
1994	0.0	78.0	12.8	87.2	100.0	99.6	0.4	0.0	0.0	9.0
1995	0.0	77.9	10.6	89.4	100.0	100.0	0.0	0.0	0.0	22.4
1996	0.0	69.7	5.4	94.6	100.0	100.0	0.0	0.0	0.0	13.5
1997	0.0	71.2	8.8	91.2	100.0	100.0	0.0	0.0	0.0	20.8
1998	0.0	69.3	6.4	93.6	100.0	100.0	0.0	0.0	0.0	16.9
1999	1.4	68.4	5.2	94.8	100.0	100.0	0.0	0.0	0.0	27.1
2000	1.8	65.9	4.7	95.3	100.0	100.0	0.0	0.0	0.0	25.7
2001	10.7	64.0	3.3	96.7	100.0	100.0	0.0	0.0	0.0	47.7
2002	9.5	64.0	3.1	96.9	100.0	100.0	0.0	0.0	0.0	54.9
2003	14.3	66.4	0.6	96.8	100.0	100.0	0.0	0.0	0.0	68.6
2004	13.1	66.5	2.3	95.8	100.0	100.0	0.0	0.0	0.0	65.6

# Appendix K

Table K-16

Characteristics of 1975 to 2004 Eight-Cylinder SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	169	0.017	12.8	10.5	11.4	10.9	4281	337 151	13.2	116	0.445	0.0358	23.1
1976	199	0.016	13.4	10.8	12.2	11.4	4551	354 149	14.0	113	0.420	0.0330	25.8
1977	234	0.017	14.8	11.9	13.4	12.5	4423	348 152	13.5	115	0.435	0.0344	27.7
1978	321	0.022	14.1	11.3	12.9	12.0	4465	354 157	13.1	116	0.442	0.0353	26.7
1979	323	0.023	11.8	9.8	10.3	10.0	4825	353 151	14.7	111	0.426	0.0313	24.2
1980	112	0.010	13.9	11.1	12.8	11.8	4776	339 154	14.1	112	0.453	0.0320	28.4
1981	78	0.007	15.2	12.1	14.1	12.9	4790	329 150	14.5	111	0.459	0.0311	31.2
1982	103	0.011	16.4	13.0	15.4	14.0	4961	333 145	15.3	109	0.440	0.0293	36.3
1983	116	0.011	16.2	12.8	15.4	13.8	4962	339 148	15.1	110	0.442	0.0299	35.6
1984	186	0.013	15.4	12.1	14.5	13.1	4971	336 156	14.5	112	0.467	0.0314	33.5
1985	198	0.014	15.6	12.2	14.9	13.3	4977	335 162	14.1	114	0.485	0.0326	33.7
1986	194	0.013	16.2	12.6	15.6	13.8	4981	330 159	14.3	113	0.484	0.0320	34.9
1987	175	0.012	15.9	12.4	15.3	13.6	5090	336 181	13.3	118	0.537	0.0353	35.0
1988	194	0.013	16.1	12.5	15.5	13.7	5115	338 183	13.2	118	0.541	0.0356	35.4
1989	208	0.014	16.0	12.4	15.6	13.7	5196	336 186	13.2	119	0.551	0.0356	35.9
1990	170	0.014	16.2	12.4	16.2	13.8	5257	338 192	12.9	120	0.569	0.0366	36.6
1991	91	0.007	16.2	12.4	16.1	13.8	5293	339 199	12.6	122	0.589	0.0375	36.9
1992	96	0.008	15.9	12.1	15.9	13.6	5428	340 201	12.7	121	0.591	0.0370	36.9
1993	237	0.018	16.9	12.8	16.9	14.4	5019	334 209	11.5	128	0.629	0.0429	36.0
1994	295	0.021	17.0	13.1	16.7	14.5	5003	334 209	11.5	128	0.629	0.0430	36.1
1995	378	0.025	17.0	13.0	16.7	14.5	5066	334 206	11.7	126	0.621	0.0417	36.5
1996	454	0.035	17.5	13.3	17.4	14.9	4965	328 225	10.8	132	0.687	0.0458	37.0
1997	729	0.050	17.6	13.4	17.7	15.1	5084	323 228	10.9	131	0.707	0.0451	38.3
1998	738	0.051	17.3	13.1	17.4	14.8	5086	320 225	11.0	131	0.707	0.0447	37.5
1999	878	0.058	17.4	13.2	17.6	14.9	5139	319 236	10.7	133	0.744	0.0463	38.2
2000	1037	0.063	17.6	13.4	17.6	15.0	5262	311 243	10.6	134	0.783	0.0464	39.6
2001	1047	0.067	17.7	13.6	17.5	15.1	5403	310 255	10.4	136	0.823	0.0473	40.8
2002	1110	0.069	18.0	13.8	18.0	15.4	5436	311 271	10.0	140	0.870	0.0500	41.9
2003	1521	0.097	18.2	13.8	18.2	15.5	5418	310 263	10.2	138	0.854	0.0490	42.1
2004	1309	0.079	18.2	13.9	18.2	15.6	5556	313 280	10.0	142	0.898	0.0507	43.2

PERCENT OF Eight-Cylinder SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	87.5	37.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	88.0	24.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	86.7	25.8	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	91.9	25.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	66.3	23.1	0.6	0.0	0.0	0.0	100.0	0.0	0.0
1980	0.0	82.4	14.9	41.4	0.0	0.0	0.0	100.0	0.0	0.0
1981	0.0	84.3	9.9	59.3	0.0	0.0	0.0	100.0	0.0	0.0
1982	0.0	79.9	8.9	57.5	0.0	0.0	0.0	75.9	24.1	0.0
1983	0.0	80.8	4.7	67.6	0.0	0.0	0.0	83.3	16.7	0.0
1984	0.0	79.4	6.4	49.3	0.0	0.0	0.0	92.2	7.8	0.0
1985	0.0	71.7	3.3	55.5	4.5	0.0	0.0	90.6	4.8	0.0
1986	0.0	75.2	3.6	72.9	20.0	20.0	0.0	76.6	3.4	0.0
1987	0.0	73.9	2.9	69.9	70.4	16.7	53.7	27.8	1.9	0.0
1988	0.0	74.9	2.6	70.9	89.1	29.0	60.1	9.4	1.5	0.0
1989	0.0	76.0	3.0	73.6	92.9	32.9	60.0	6.0	1.1	0.0
1990	0.0	73.0	2.0	86.9	94.8	32.8	62.1	4.0	1.2	0.0
1991	0.0	70.6	1.4	89.7	94.1	30.1	64.0	4.1	1.8	0.0
1992	0.0	73.8	1.3	98.2	100.0	30.7	69.3	0.0	0.0	0.0
1993	0.0	47.3	0.9	99.1	100.0	49.4	50.6	0.0	0.0	0.0
1994	0.0	81.1	1.4	98.6	100.0	48.6	51.4	0.0	0.0	0.0
1995	0.0	82.9	1.2	98.8	100.0	41.7	58.3	0.0	0.0	0.0
1996	0.0	78.6	0.8	99.2	99.9	99.9	0.0	0.0	0.1	0.0
1997	0.0	75.5	0.1	99.9	100.0	100.0	0.0	0.0	0.0	0.0
1998	0.0	75.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
1999	0.0	58.7	0.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	69.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0	9.2
2001	0.0	63.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.9
2002	0.0	64.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	11.0
2003	0.0	54.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0	17.6
2004	0.0	68.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0	24.2

# Appendix K

Table K-17

Characteristics of 1975 to 2004 Two-Cylinder Pickups

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	<----> ADJ HWY	55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	3	0.000	15.5	11.7	15.9	13.2	3000	80	135	10.7	122	1.687	0.0441	19.9
1976	4	0.000	16.4	12.4	16.8	14.1	3000	80	135	10.7	122	1.687	0.0444	21.1
1977	2	0.000	19.3	14.7	19.4	16.5	3000	80	135	10.7	122	1.687	0.0441	24.8

PERCENT OF Two-Cylinder Pickups:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	68.2	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	81.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	85.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0

# Appendix K

Table K-18

Characteristics of 1975 to 2004 Four-Cylinder Pickups

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	214	0.021	22.2	17.2	21.6	19.0	2817	116	88	14.7	105	0.750	0.0313	26.8
1976	224	0.018	23.7	18.4	23.1	20.2	2826	117	89	14.6	105	0.757	0.0317	28.7
1977	304	0.022	26.4	20.6	25.3	22.5	2819	122	91	14.2	106	0.748	0.0323	32.0
1978	339	0.023	26.3	21.0	24.3	22.4	2844	120	88	14.7	104	0.731	0.0310	32.1
1979	459	0.033	23.4	18.4	22.1	19.9	2832	123	84	14.9	103	0.692	0.0299	28.7
1980	550	0.049	24.6	19.6	22.8	20.9	2818	124	87	14.5	104	0.705	0.0310	29.9
1981	497	0.047	27.7	22.1	25.7	23.6	2841	130	85	15.1	103	0.652	0.0297	34.1
1982	485	0.050	27.8	22.1	25.7	23.6	2885	133	87	14.9	104	0.657	0.0302	34.6
1983	707	0.069	27.6	22.0	25.6	23.5	2921	135	88	14.8	104	0.650	0.0301	34.7
1984	795	0.057	27.2	21.7	25.2	23.1	2973	134	89	14.9	104	0.661	0.0299	34.7
1985	819	0.057	27.4	21.9	25.3	23.3	3034	141	97	14.0	107	0.693	0.0321	35.5
1986	1256	0.082	27.0	21.4	25.2	23.0	3054	139	97	14.2	106	0.696	0.0317	35.2
1987	1064	0.072	27.1	21.4	25.5	23.1	3050	140	96	14.2	106	0.686	0.0316	35.3
1988	913	0.060	27.1	21.5	25.4	23.1	3070	142	97	14.2	106	0.685	0.0317	35.6
1989	773	0.054	26.8	21.3	25.1	22.8	3084	143	102	13.7	108	0.710	0.0330	35.3
1990	554	0.044	27.1	21.5	25.3	23.1	3096	144	110	13.0	111	0.765	0.0356	35.9
1991	632	0.050	27.3	21.6	25.6	23.3	3119	145	108	13.2	110	0.749	0.0348	36.4
1992	471	0.039	27.1	21.3	25.5	23.0	3194	143	110	13.3	110	0.767	0.0347	36.9
1993	478	0.036	27.3	21.5	25.8	23.3	3210	143	112	13.2	111	0.782	0.0351	37.4
1994	706	0.051	27.3	21.5	25.8	23.3	3333	141	113	13.4	110	0.799	0.0342	38.8
1995	653	0.043	26.8	21.0	25.4	22.8	3425	147	124	12.8	113	0.848	0.0365	39.3
1996	556	0.042	27.0	21.1	26.0	23.0	3420	142	124	12.8	113	0.871	0.0366	39.6
1997	465	0.032	27.5	21.5	26.2	23.4	3457	140	120	13.2	111	0.853	0.0349	40.7
1998	615	0.043	27.0	21.1	25.9	23.0	3462	145	127	12.7	114	0.877	0.0370	40.1
1999	392	0.026	26.5	20.6	25.5	22.6	3451	147	127	12.7	114	0.867	0.0371	39.2
2000	437	0.026	26.0	20.2	25.1	22.2	3466	145	127	12.7	114	0.879	0.0368	38.6
2001	276	0.018	25.8	20.2	24.5	22.0	3498	145	132	12.5	115	0.907	0.0378	38.6
2002	166	0.010	26.3	20.9	24.6	22.4	3525	149	143	11.7	119	0.958	0.0407	39.7
2003	290	0.019	26.2	20.3	25.4	22.3	3527	142	133	12.5	115	0.933	0.0377	39.6
2004	169	0.010	26.3	20.7	24.9	22.4	3617	149	150	11.6	120	1.003	0.0414	40.7

PERCENT OF Four-Cylinder Pickups:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE
1975	0.0	0.0	83.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	0.0	81.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	0.0	82.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	6.9	88.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1979	0.0	20.5	88.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1980	4.8	20.2	89.9	0.0	2.7	0.0	0.0	95.2	2.0	0.0
1981	6.7	23.0	93.1	0.0	1.8	0.0	0.0	81.9	16.3	0.0
1982	6.6	23.4	90.8	2.3	0.7	0.0	0.0	83.9	15.4	0.0
1983	4.3	18.9	86.3	1.4	0.2	0.0	0.0	94.1	5.7	0.0
1984	1.5	20.6	88.9	2.5	2.5	0.0	0.0	93.3	4.2	0.0
1985	0.0	22.4	84.6	8.8	29.0	0.0	0.0	69.3	1.7	0.0
1986	0.0	19.8	85.9	7.9	36.9	14.3	22.6	62.3	0.7	0.0
1987	0.0	17.3	84.5	7.9	38.5	11.7	26.8	61.1	0.3	0.0
1988	0.0	15.2	84.9	9.3	57.1	27.3	29.7	42.9	0.0	0.0
1989	0.0	15.3	84.9	10.6	71.2	34.5	36.6	28.8	0.0	0.0
1990	0.0	13.1	84.9	12.9	80.1	69.5	10.5	19.9	0.0	0.0
1991	0.0	12.4	85.3	12.0	90.3	67.3	23.0	9.7	0.0	0.0
1992	0.0	13.8	86.8	10.1	87.4	77.6	9.8	12.6	0.0	0.0
1993	0.0	14.8	86.8	9.9	91.2	87.0	4.2	8.8	0.0	0.0
1994	0.0	12.2	85.2	11.2	97.1	96.7	0.4	2.9	0.0	0.2
1995	0.0	15.3	79.9	17.0	100.0	97.3	2.7	0.0	0.0	17.7
1996	0.0	9.8	76.6	18.6	100.0	100.0	0.0	0.0	0.0	19.3
1997	0.0	5.9	78.0	22.0	100.0	100.0	0.0	0.0	0.0	0.5
1998	0.0	11.1	66.9	27.1	100.0	100.0	0.0	0.0	0.0	35.6
1999	0.0	10.5	57.4	36.5	100.0	100.0	0.0	0.0	0.0	34.6
2000	0.0	7.9	48.0	47.2	100.0	100.0	0.0	0.0	0.0	35.0
2001	0.0	8.7	48.6	43.6	100.0	100.0	0.0	0.0	0.0	53.9
2002	0.0	12.5	47.9	39.6	100.0	100.0	0.0	0.0	0.0	99.9
2003	0.0	10.6	33.4	59.0	100.0	100.0	0.0	0.0	0.0	46.1
2004	0.0	28.1	37.0	52.8	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix K

Table K-19

Characteristics of 1975 to 2004 Five-Cylinder Pickups

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
2004	79	0.005	23.6	18.1	23.4	20.1	4146	211	215	9.7	137	1.019	0.0519	41.7

PERCENT OF Five-Cylinder Pickups:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL	FOUR VALVE
2004	0.0	42.6	6.0	94.0	100.0	100.0	0.0	0.0	0.0	100.0

# Appendix K

Table K-20

Characteristics of 1975 to 2004 Six-Cylinder Pickups

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	144	0.014	17.1	13.7	15.8	14.6	4020	270	103	17.0	101	0.384	0.0255	29.5
1976	272	0.022	18.9	15.1	17.4	16.0	4007	267	103	16.9	101	0.389	0.0255	32.3
1977	254	0.018	19.0	15.3	17.3	16.2	4044	271	109	16.2	103	0.405	0.0270	32.9
1978	346	0.024	18.5	14.9	16.8	15.7	4054	274	116	15.5	106	0.428	0.0285	32.1
1979	355	0.026	17.5	14.3	15.6	14.8	4173	266	122	15.1	107	0.464	0.0292	31.3
1980	387	0.034	19.1	15.2	17.7	16.3	4027	271	121	14.8	107	0.451	0.0299	32.9
1981	472	0.045	20.1	16.0	18.7	17.1	3934	274	120	14.6	108	0.444	0.0306	33.9
1982	480	0.049	21.7	17.1	20.5	18.5	3578	236	113	14.2	108	0.502	0.0320	33.2
1983	484	0.047	21.6	16.9	20.7	18.4	3653	228	112	14.6	107	0.516	0.0309	33.7
1984	687	0.049	21.0	16.4	20.1	17.9	3676	227	110	14.8	106	0.510	0.0303	33.0
1985	591	0.041	21.7	16.9	20.8	18.5	3588	227	117	14.0	109	0.535	0.0326	33.1
1986	600	0.039	21.1	16.6	19.9	18.0	3705	228	129	13.3	113	0.604	0.0353	33.3
1987	631	0.042	21.4	16.7	20.6	18.3	3647	222	136	12.5	116	0.637	0.0377	33.3
1988	746	0.049	21.4	16.6	20.8	18.3	3695	229	142	12.2	117	0.644	0.0387	33.7
1989	732	0.051	20.9	16.3	20.1	17.8	3869	239	145	12.5	117	0.627	0.0377	34.6
1990	593	0.047	21.0	16.3	20.4	17.9	3959	240	147	12.5	117	0.637	0.0375	35.6
1991	769	0.061	21.9	16.8	21.5	18.7	3807	236	147	12.2	118	0.641	0.0389	35.5
1992	792	0.065	21.2	16.3	21.0	18.1	3950	242	146	12.6	117	0.622	0.0374	35.7
1993	916	0.069	21.3	16.4	21.1	18.2	3944	239	150	12.4	118	0.645	0.0383	35.9
1994	991	0.071	21.3	16.4	21.0	18.2	3980	245	160	11.8	121	0.670	0.0407	36.2
1995	679	0.045	20.8	15.9	20.6	17.7	4122	256	161	12.1	120	0.645	0.0395	36.5
1996	628	0.048	21.0	16.2	20.7	17.9	4104	249	168	11.7	122	0.688	0.0411	36.9
1997	674	0.047	21.5	16.5	21.2	18.3	4100	247	185	10.8	128	0.753	0.0453	37.5
1998	729	0.050	21.3	16.4	20.9	18.1	4064	238	180	11.0	126	0.759	0.0443	36.8
1999	798	0.052	20.9	16.1	20.5	17.8	4044	230	174	11.3	124	0.763	0.0429	36.0
2000	921	0.056	20.9	16.2	20.4	17.8	4080	228	175	11.3	125	0.774	0.0430	36.4
2001	959	0.061	20.6	16.0	20.1	17.6	4170	233	187	10.9	127	0.805	0.0449	36.7
2002	842	0.052	20.6	16.0	19.9	17.5	4192	232	186	11.0	127	0.806	0.0444	36.8
2003	852	0.055	20.8	16.1	20.2	17.7	4269	233	187	11.1	127	0.807	0.0439	37.8
2004	644	0.039	20.9	16.1	20.4	17.8	4256	226	191	10.9	128	0.848	0.0448	37.9

PERCENT OF Six-Cylinder Pickups:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING				FOUR	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL	VALVE	
1975	0.0	3.3	16.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
1976	0.0	5.3	35.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
1977	0.0	10.8	29.6	0.0	0.0	0.0	0.0	100.0	0.0	0.0	
1978	0.0	11.4	30.9	0.0	0.0	0.0	0.0	99.7	0.3	0.0	
1979	0.0	11.7	61.4	2.4	0.0	0.0	0.0	99.2	0.8	0.0	
1980	0.0	12.6	65.4	19.5	0.0	0.0	0.0	99.8	0.2	0.0	
1981	0.0	10.2	61.1	21.9	0.0	0.0	0.0	100.0	0.0	0.0	
1982	0.0	8.9	56.6	30.2	0.0	0.0	0.0	100.0	0.0	0.0	
1983	0.0	23.5	53.0	32.1	0.0	0.0	0.0	100.0	0.0	0.0	
1984	0.0	25.8	49.8	30.5	0.0	0.0	0.0	100.0	0.0	0.0	
1985	0.0	26.8	52.4	33.5	1.1	0.0	1.1	98.9	0.0	0.0	
1986	0.0	30.7	53.0	30.9	50.1	23.3	26.8	49.9	0.0	0.0	
1987	0.0	33.1	46.1	45.7	81.5	50.4	31.2	18.5	0.0	0.0	
1988	0.0	34.3	49.8	42.0	100.0	53.9	46.1	0.0	0.0	0.0	
1989	0.0	33.6	51.5	43.8	100.0	52.7	47.3	0.0	0.0	0.0	
1990	0.0	30.0	46.3	50.3	100.0	62.2	37.8	0.0	0.0	0.0	
1991	0.0	25.8	51.7	48.3	100.0	43.6	56.4	0.0	0.0	0.0	
1992	0.0	23.2	48.6	51.4	100.0	56.4	43.6	0.0	0.0	0.0	
1993	0.0	24.2	45.3	54.7	100.0	58.5	41.5	0.0	0.0	0.0	
1994	0.0	28.8	39.6	60.4	100.0	69.2	30.8	0.0	0.0	0.0	
1995	0.0	28.1	42.7	57.3	100.0	69.6	30.4	0.0	0.0	1.4	
1996	0.0	27.2	33.5	66.5	100.0	100.0	0.0	0.0	0.0	10.1	
1997	0.0	21.5	27.8	72.2	100.0	100.0	0.0	0.0	0.0	4.2	
1998	0.0	28.7	28.0	72.0	100.0	100.0	0.0	0.0	0.0	7.1	
1999	0.0	32.9	23.8	76.2	100.0	100.0	0.0	0.0	0.0	7.6	
2000	0.0	31.4	21.7	78.3	100.0	100.0	0.0	0.0	0.0	7.0	
2001	0.0	30.4	14.7	85.3	100.0	100.0	0.0	0.0	0.0	10.3	
2002	0.0	32.5	15.1	84.9	100.0	100.0	0.0	0.0	0.0	19.8	
2003	0.0	35.3	13.4	86.6	100.0	100.0	0.0	0.0	0.0	13.9	
2004	0.0	34.2	19.5	80.5	100.0	100.0	0.0	0.0	0.0	17.7	

# Appendix K

Table K-21

Characteristics of 1975 to 2004 Eight-Cylinder Pickups

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	>---- ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1975	982	0.096	12.6	10.0	11.8	10.8	4274	353	158	12.7	118	0.446	0.0371	23.3
1976	1367	0.111	13.2	10.6	12.0	11.2	4360	359	155	13.1	116	0.430	0.0356	24.6
1977	1466	0.104	14.4	11.7	12.9	12.2	4366	360	164	12.6	119	0.457	0.0377	26.9
1978	1582	0.109	14.0	11.5	12.5	11.9	4386	353	162	12.7	118	0.460	0.0371	26.4
1979	1392	0.100	13.6	11.3	12.1	11.6	4566	346	156	13.8	115	0.449	0.0343	27.0
1980	500	0.044	15.9	12.8	14.6	13.6	4532	331	150	13.9	113	0.452	0.0330	31.3
1981	470	0.045	17.4	13.8	16.1	14.8	4311	312	143	13.8	113	0.461	0.0332	32.2
1982	476	0.049	17.8	14.2	16.5	15.1	4437	317	150	13.7	114	0.475	0.0339	34.4
1983	437	0.042	17.2	13.6	16.1	14.7	4430	317	152	13.5	114	0.483	0.0343	33.3
1984	561	0.040	16.9	13.3	15.9	14.4	4463	316	154	13.4	115	0.489	0.0346	32.6
1985	668	0.046	16.7	13.2	15.6	14.2	4437	315	159	13.0	117	0.506	0.0359	31.9
1986	675	0.044	17.4	13.7	16.4	14.8	4424	311	157	13.1	116	0.503	0.0354	32.9
1987	451	0.030	17.0	13.3	16.0	14.4	4482	320	169	12.6	119	0.527	0.0377	32.5
1988	800	0.052	17.5	13.6	16.9	14.9	4537	329	180	12.1	122	0.544	0.0395	33.9
1989	726	0.050	17.5	13.5	17.0	14.9	4502	330	184	11.9	124	0.556	0.0410	33.6
1990	687	0.055	17.3	13.3	17.1	14.7	4572	335	189	11.8	124	0.561	0.0413	33.9
1991	519	0.041	17.3	13.3	17.1	14.8	4542	331	190	11.6	125	0.573	0.0418	33.6
1992	577	0.047	17.4	13.3	17.4	14.9	4652	330	190	11.9	124	0.573	0.0408	34.7
1993	608	0.046	17.7	13.5	17.7	15.1	4691	331	200	11.3	127	0.606	0.0427	35.6
1994	894	0.064	17.6	13.5	17.4	15.0	4715	334	205	11.2	128	0.614	0.0435	35.5
1995	939	0.062	17.3	13.3	17.2	14.8	4751	333	201	11.4	127	0.606	0.0424	35.2
1996	771	0.059	17.7	13.5	17.7	15.1	4815	332	226	10.5	133	0.680	0.0470	36.4
1997	1269	0.088	18.3	13.9	18.3	15.6	4933	318	228	10.6	133	0.721	0.0465	38.6
1998	1071	0.074	18.0	13.6	18.2	15.4	4902	323	232	10.4	134	0.723	0.0476	37.7
1999	1361	0.089	18.1	13.9	18.0	15.5	5042	324	245	10.2	137	0.758	0.0489	39.0
2000	1255	0.076	18.8	14.5	18.4	16.0	4836	313	249	9.7	140	0.798	0.0517	38.8
2001	1387	0.089	18.2	13.9	18.0	15.5	5022	316	252	9.9	139	0.801	0.0503	39.1
2002	1373	0.085	18.3	14.1	18.0	15.6	5137	310	261	9.8	140	0.843	0.0510	40.1
2003	1230	0.079	18.6	14.3	18.1	15.8	5094	311	272	9.5	144	0.874	0.0536	40.4
2004	1638	0.099	18.9	14.5	18.6	16.1	5371	319	282	9.7	144	0.879	0.0526	43.4

PERCENT OF Eight-Cylinder Pickups:

MODEL YEAR	DRIVETRAIN FRONT 4WD		TRANSMISSION MANUAL LOCK		FUEL FI	METERING PORT TBI CARB			FOUR DSL VALVE	
1975	0.0	18.0	35.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1976	0.0	27.5	32.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1977	0.0	27.7	27.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0
1978	0.0	34.7	27.9	0.0	0.0	0.0	0.0	98.4	1.6	0.0
1979	0.0	10.2	18.6	1.5	0.0	0.0	0.0	96.3	3.7	0.0
1980	0.0	28.5	19.5	47.9	0.0	0.0	0.0	90.4	9.6	0.0
1981	0.0	17.0	16.8	62.2	0.0	0.0	0.0	95.5	4.5	0.0
1982	0.0	20.7	13.7	56.5	0.0	0.0	0.0	84.6	15.4	0.0
1983	0.0	25.6	11.5	66.5	0.0	0.0	0.0	92.9	7.1	0.0
1984	0.0	29.1	12.8	65.7	0.0	0.0	0.0	96.1	3.9	0.0
1985	0.0	27.8	10.3	64.4	13.1	0.0	0.0	85.1	1.8	0.0
1986	0.0	30.2	11.9	72.0	32.2	32.2	0.0	66.8	1.0	0.0
1987	0.1	34.1	14.4	54.8	75.3	30.0	45.3	24.1	0.6	0.0
1988	0.0	38.1	13.4	69.4	98.8	27.4	71.4	0.6	0.6	0.0
1989	0.0	38.8	18.8	72.1	99.5	29.3	70.2	0.0	0.5	0.0
1990	0.0	38.0	14.0	79.1	99.5	30.2	69.3	0.0	0.5	0.0
1991	0.0	38.5	12.7	85.3	99.4	30.8	68.7	0.0	0.6	0.0
1992	0.0	40.7	12.5	87.4	99.6	44.2	55.4	0.0	0.4	0.0
1993	0.0	43.0	8.1	91.9	100.0	45.1	54.9	0.0	0.0	0.0
1994	0.0	46.0	5.9	94.1	100.0	45.6	54.4	0.0	0.0	0.0
1995	0.0	48.9	9.4	90.6	100.0	50.1	49.9	0.0	0.0	0.0
1996	0.0	45.0	5.3	94.7	99.5	99.5	0.0	0.0	0.5	0.0
1997	0.0	52.2	4.6	95.4	99.9	99.9	0.0	0.0	0.1	0.0
1998	0.0	52.6	4.1	95.9	99.9	99.9	0.0	0.0	0.1	0.0
1999	0.0	62.4	2.4	97.6	100.0	100.0	0.0	0.0	0.0	0.0
2000	0.0	54.1	2.0	98.0	100.0	100.0	0.0	0.0	0.0	9.2
2001	0.0	51.2	2.0	98.0	100.0	100.0	0.0	0.0	0.0	5.3
2002	0.0	52.0	1.5	98.5	100.0	100.0	0.0	0.0	0.0	6.6
2003	0.0	49.7	2.7	97.3	100.0	100.0	0.0	0.0	0.0	6.9
2004	0.0	44.3	0.4	99.6	100.0	100.0	0.0	0.0	0.0	12.7

# Appendix L

Table L-1 Characteristics of 1985 to 2004 Two-Valve Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1986	10490	0.683	27.8	21.2	27.6	23.7	3053	108.0	170	111	13.2	111	0.687	0.0357	36.4	2615	3937
1987	9155	0.616	27.4	20.9	27.5	23.4	3085	108.5	171	115	13.0	112	0.706	0.0366	36.3	2591	3950
1988	8601	0.562	27.9	21.2	28.1	23.9	3109	109.2	171	118	12.8	113	0.719	0.0374	37.2	2656	4080
1989	7575	0.524	27.4	20.7	27.9	23.4	3180	110.5	177	123	12.6	115	0.723	0.0382	37.4	2629	4139
1990	5906	0.468	26.9	20.2	27.7	23.0	3292	111.2	182	129	12.4	116	0.732	0.0389	37.9	2592	4232
1991	5593	0.445	27.0	20.3	27.9	23.1	3271	111.2	184	134	12.1	118	0.749	0.0404	37.9	2614	4234
1992	5367	0.441	26.8	20.0	28.0	22.9	3333	112.4	190	142	11.7	120	0.770	0.0421	38.3	2612	4321
1993	5458	0.413	27.6	20.7	28.7	23.6	3259	111.7	183	137	11.8	119	0.765	0.0414	38.6	2680	4332
1994	4976	0.356	27.3	20.4	28.5	23.4	3322	111.6	188	141	11.7	120	0.765	0.0418	38.9	2651	4358
1995	4402	0.291	27.3	20.3	28.9	23.4	3364	112.9	194	155	11.1	124	0.808	0.0453	39.5	2691	4469
1996	3384	0.257	27.3	20.2	28.8	23.4	3394	112.1	193	157	10.9	125	0.823	0.0457	39.7	2656	4465
1997	3476	0.240	27.6	20.5	29.0	23.6	3357	112.5	188	157	10.9	125	0.842	0.0460	39.7	2686	4474
1998	2958	0.205	27.2	20.2	28.8	23.3	3381	111.5	194	164	10.5	128	0.850	0.0479	39.5	2628	4415
1999	3084	0.202	27.3	20.3	28.6	23.3	3395	111.1	191	162	10.7	127	0.858	0.0470	39.7	2618	4419
2000	3114	0.188	27.3	20.3	28.7	23.4	3454	101.6	194	170	10.5	129	0.879	0.0485	40.5	2408	4136
2001	2781	0.178	27.7	20.6	29.1	23.7	3440	111.8	193	169	10.4	129	0.881	0.0486	41.0	2679	4591
2002	2502	0.155	28.4	21.1	29.6	24.3	3422	111.6	195	170	10.3	130	0.885	0.0493	41.7	2738	4664
2003	2031	0.130	27.9	20.7	29.3	23.9	3611	110.7	224	181	10.2	131	0.874	0.0499	43.5	2669	4819
2004	2136	0.128	27.1	20.0	28.8	23.2	3638	114.5	216	191	9.8	135	0.886	0.0524	42.3	2679	4864

Percent of Two-Valve Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL
1986	70.4	1.1	22.8	59.2	65.1	35.3	29.9	34.6	0.3
1987	74.2	1.2	20.7	61.2	77.4	41.7	35.8	22.3	0.3
1988	78.4	0.8	19.4	68.7	90.0	54.8	35.2	10.0	0.0
1989	79.8	0.7	15.2	72.4	94.4	63.4	31.0	5.6	0.1
1990	82.9	0.4	11.1	78.5	99.4	74.4	25.0	0.6	0.1
1991	81.5	0.3	11.5	80.6	99.8	73.9	25.9	0.0	0.2
1992	81.3	0.6	10.1	81.6	99.9	87.1	12.8	0.0	0.1
1993	83.2	1.0	11.7	82.1	100.0	88.9	11.1	0.0	0.0
1994	80.4	0.7	10.8	84.3	100.0	91.3	8.7	0.0	0.0
1995	78.9	0.1	11.1	88.0	100.0	97.5	2.5	0.0	0.0
1996	78.9	0.5	11.2	87.3	99.9	97.3	2.6	0.0	0.1
1997	82.1	0.5	10.5	88.1	99.9	98.0	1.9	0.0	0.1
1998	83.4	0.1	10.1	89.8	99.6	99.2	0.4	0.0	0.4
1999	83.8	0.1	9.7	89.7	99.7	99.4	0.3	0.0	0.3
2000	79.2	0.0	9.9	89.2	99.3	99.2	0.2	0.0	0.7
2001	82.3	0.0	8.4	91.0	99.2	99.2	0.0	0.0	0.8
2002	85.6	0.0	8.0	92.0	98.7	98.7	0.0	0.0	1.3
2003	78.5	0.6	7.1	91.6	98.4	98.4	0.0	0.0	1.6
2004	79.0	0.0	6.9	91.8	99.0	99.0	0.0	0.0	1.0



# Appendix L

Table L-2

Characteristics of 1985 to 2004 Three-Valve Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1986	349	0.023	32.2	25.1	31.0	27.5	2668	96.7	115	102	12.3	112	0.888	0.0382	36.7	2656	3562
1987	975	0.066	34.4	27.2	32.3	29.3	2524	93.4	101	82	14.4	104	0.799	0.0322	37.1	2743	3463
1988	1017	0.066	32.4	25.4	30.7	27.6	2689	99.4	109	93	13.6	108	0.850	0.0343	37.2	2765	3702
1989	1161	0.080	31.0	24.1	30.1	26.5	2788	100.3	117	105	12.5	112	0.902	0.0375	37.0	2690	3722
1990	639	0.051	31.4	24.3	30.4	26.7	2738	98.5	117	106	12.3	113	0.911	0.0385	36.8	2675	3630
1991	526	0.042	32.0	24.9	30.7	27.2	2692	100.7	111	102	12.5	112	0.928	0.0376	36.8	2773	3709
1992	330	0.027	30.9	24.1	29.8	26.4	2785	101.5	120	112	12.0	114	0.938	0.0395	36.8	2726	3738
1993	225	0.017	35.0	27.7	32.8	29.8	2472	96.5	93	92	12.6	110	0.984	0.0369	37.0	2911	3573
1994	163	0.012	34.9	27.8	32.3	29.6	2501	97.4	95	92	12.8	109	0.962	0.0364	37.1	2929	3623
1995	102	0.007	37.1	28.8	35.8	31.6	2475	99.6	90	91	12.7	109	1.004	0.0367	39.2	3158	3904
1996	74	0.006	36.4	28.2	35.2	31.0	2478	100.7	91	91	12.7	109	1.002	0.0366	38.5	3129	3874
1997	71	0.005	37.4	28.8	36.7	31.9	2500	100.6	90	91	12.7	109	1.006	0.0364	40.0	3222	4028
1998	119	0.008	31.8	24.1	32.0	27.1	3116	104.6	138	150	11.1	124	1.058	0.0458	42.0	2893	4410
1999	179	0.012	29.8	22.5	30.3	25.5	3282	100.0	158	169	10.6	129	1.052	0.0489	41.5	2641	4172
2000	81	0.005	34.1	26.0	34.1	29.1	2780	102.7	101	104	13.0	111	1.010	0.0364	40.3	3006	4149
2001	174	0.011	26.1	19.6	26.7	22.3	3731	103.0	205	219	9.2	142	1.067	0.0570	41.5	2346	4297
2002	168	0.010	25.5	19.2	25.9	21.8	3727	103.0	199	213	9.5	140	1.071	0.0556	40.5	2291	4188
2003	195	0.012	24.3	18.3	24.9	20.7	3952	100.4	209	239	8.8	146	1.177	0.0598	41.2	2114	4172
2004	193	0.012	22.8	17.3	23.0	19.5	4263	105.0	228	241	9.3	144	1.058	0.0570	41.5	2041	4425

Percent of Three-Valve Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL
1986	100.0	0.0	60.5	39.5	48.4	48.4	0.0	51.6	0.0
1987	99.4	0.6	53.7	46.3	18.9	18.9	0.0	81.1	0.0
1988	95.9	1.3	49.8	50.1	27.7	27.7	0.0	72.3	0.0
1989	92.2	0.1	44.5	54.5	70.0	48.9	21.2	30.0	0.0
1990	89.0	0.8	49.1	46.5	86.1	60.4	25.7	13.9	0.0
1991	98.2	1.2	41.9	51.0	99.5	85.8	13.7	0.5	0.0
1992	90.9	0.1	40.1	59.9	99.8	99.8	0.0	0.2	0.0
1993	99.1	0.9	52.1	28.7	100.0	92.9	7.1	0.0	0.0
1994	93.8	0.0	46.0	33.9	100.0	100.0	0.0	0.0	0.0
1995	100.0	0.0	35.8	35.7	100.0	100.0	0.0	0.0	0.0
1996	100.0	0.0	32.1	38.3	100.0	100.0	0.0	0.0	0.0
1997	100.0	0.0	38.8	61.2	100.0	100.0	0.0	0.0	0.0
1998	55.0	0.0	18.3	81.7	100.0	100.0	0.0	0.0	0.0
1999	45.9	0.0	13.7	86.3	100.0	100.0	0.0	0.0	0.0
2000	89.7	0.0	26.9	73.1	100.0	100.0	0.0	0.0	0.0
2001	15.8	5.9	13.2	86.8	100.0	100.0	0.0	0.0	0.0
2002	15.1	5.5	12.3	87.7	100.0	100.0	0.0	0.0	0.0
2003	0.0	12.0	3.9	96.1	100.0	100.0	0.0	0.0	0.0
2004	0.0	34.2	4.7	95.3	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-3

Characteristics of 1985 to 2004 Four-Valve Cars

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1986	176	0.011	27.8	21.6	27.1	23.7	3032	89.0	125	144	10.6	124	1.150	0.0469	36.2	2120	3201
1987	601	0.040	30.0	23.3	29.0	25.6	3025	98.4	123	126	11.8	118	1.026	0.0412	39.0	2574	3851
1988	1117	0.073	30.9	24.0	29.8	26.3	2889	97.1	120	119	12.0	116	0.983	0.0404	38.3	2610	3721
1989	1282	0.089	30.4	23.6	29.4	25.9	2901	97.9	120	124	11.5	118	1.027	0.0422	37.8	2581	3700
1990	2264	0.179	29.3	22.8	28.4	25.0	2997	98.6	125	133	11.3	120	1.060	0.0436	37.6	2499	3713
1991	2405	0.191	29.6	23.0	28.7	25.3	2983	97.8	125	133	11.2	121	1.071	0.0441	37.9	2517	3713
1992	2411	0.198	29.2	22.4	28.8	24.9	3094	100.3	130	140	11.1	122	1.077	0.0446	38.7	2547	3892
1993	2773	0.210	28.9	22.1	28.8	24.7	3165	102.9	138	145	11.0	123	1.052	0.0450	39.3	2585	4034
1994	3275	0.234	29.0	22.1	29.1	24.7	3177	103.5	140	148	10.9	124	1.060	0.0456	39.5	2603	4084
1995	4892	0.323	29.1	22.0	29.6	24.9	3188	105.1	144	151	10.6	125	1.066	0.0468	39.8	2653	4185
1996	4432	0.337	29.0	21.9	29.6	24.8	3209	106.7	145	153	10.7	126	1.060	0.0470	39.9	2675	4256
1997	4787	0.331	29.0	21.8	29.7	24.8	3224	106.0	147	156	10.6	127	1.069	0.0476	40.0	2658	4251
1998	4823	0.334	29.3	22.1	30.0	25.1	3261	107.0	146	156	10.6	126	1.075	0.0472	41.0	2715	4391
1999	4976	0.327	28.7	21.6	29.5	24.6	3342	108.1	151	165	10.4	128	1.091	0.0487	41.2	2683	4460
2000	5765	0.348	28.6	21.6	29.3	24.5	3328	105.1	151	167	10.3	129	1.106	0.0496	40.8	2609	4300
2001	5197	0.333	29.1	22.0	29.6	24.8	3329	108.3	149	165	10.3	129	1.109	0.0491	41.6	2738	4514
2002	5392	0.335	29.0	21.9	29.3	24.7	3356	108.9	152	172	10.1	131	1.130	0.0506	41.8	2741	4560
2003	5235	0.335	29.7	22.4	30.2	25.4	3332	108.7	151	173	10.0	132	1.143	0.0514	42.5	2805	4633
2004	5948	0.358	29.8	22.5	30.4	25.4	3363	109.2	153	177	10.0	132	1.151	0.0517	43.2	2838	4725

Percent of Four-Valve Cars:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL
1986	56.6	0.0	72.2	23.1	100.0	100.0	0.0	0.0	0.0
1987	84.6	0.0	43.4	54.8	93.2	93.2	0.0	6.8	0.0
1988	94.2	0.8	38.1	60.9	86.5	69.1	17.4	13.5	0.0
1989	90.0	3.1	33.7	64.5	84.1	68.5	15.6	15.9	0.0
1990	88.0	2.5	33.7	65.7	100.0	90.4	9.6	0.0	0.0
1991	84.1	3.9	36.8	62.0	100.0	85.7	14.3	0.0	0.0
1992	78.4	2.3	30.6	67.1	100.0	93.6	6.4	0.0	0.0
1993	87.7	1.6	27.1	70.6	100.0	96.6	3.4	0.0	0.0
1994	90.1	0.1	24.2	73.9	100.0	100.0	0.0	0.0	0.0
1995	84.3	2.1	20.5	77.3	99.9	99.9	0.0	0.0	0.1
1996	92.2	2.3	17.4	81.4	99.9	99.9	0.0	0.0	0.1
1997	89.7	2.6	15.2	84.6	99.9	99.9	0.0	0.0	0.1
1998	90.6	2.9	13.1	86.4	99.9	99.9	0.0	0.0	0.1
1999	91.5	2.7	11.1	88.1	99.9	99.9	0.0	0.0	0.1
2000	88.5	2.3	10.8	87.8	100.0	100.0	0.0	0.0	0.0
2001	88.7	3.0	11.3	87.2	100.0	100.0	0.0	0.0	0.0
2002	87.6	4.3	12.4	86.7	100.0	100.0	0.0	0.0	0.0
2003	86.9	2.6	11.9	87.6	100.0	100.0	0.0	0.0	0.0
2004	84.1	4.6	14.5	82.9	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-4

Characteristics of 1985 to 2004 Five-Valve Cars

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	ADJ ADJ HWY	----> ADJ 55/45	WGHT LB	VOL CU-FT	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG	CU-FT -MPG	CU-FT- TON-MPG
1995	0	0.000	13.7	9.9	15.0	11.7	4000	50.0	213	375	6.1	191	1.760	0.0926	23.4	586	1172
1996	0	0.000	13.8	10.0	15.3	11.8	3500	50.0	213	375	5.5	203	1.759	0.1049	20.7	592	1036
1997	9	0.001	26.1	19.3	27.8	22.4	3352	98.0	116	166	10.4	129	1.403	0.0492	38.7	2309	3856
1998	71	0.005	26.1	19.2	28.3	22.4	3592	108.9	142	175	10.2	130	1.257	0.0486	40.6	2477	4439
1999	140	0.009	26.2	19.2	28.6	22.5	3576	112.0	138	172	10.3	129	1.270	0.0481	40.6	2554	4559
2000	167	0.010	26.5	19.9	27.3	22.7	3495	109.3	137	181	9.8	133	1.337	0.0514	39.8	2503	4358
2001	257	0.016	26.3	19.8	27.1	22.5	3514	105.2	135	186	9.6	134	1.402	0.0525	39.7	2391	4180
2002	240	0.015	27.1	20.3	28.1	23.2	3615	104.7	131	190	9.6	135	1.495	0.0525	42.1	2465	4419
2003	244	0.016	27.4	20.6	28.2	23.4	3645	103.6	131	190	9.7	134	1.483	0.0520	42.8	2461	4446
2004	278	0.017	27.2	20.4	28.1	23.3	3695	106.7	135	196	9.7	135	1.486	0.0527	43.1	2508	4612

Percent of Five-Valve Cars:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL
1995	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0
1996	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0
1997	29.6	63.4	39.4	60.6	100.0	100.0	0.0	0.0	0.0
1998	46.1	53.2	35.9	63.8	100.0	100.0	0.0	0.0	0.0
1999	62.3	36.9	25.4	74.0	100.0	100.0	0.0	0.0	0.0
2000	64.3	35.3	39.1	60.9	100.0	100.0	0.0	0.0	0.0
2001	57.7	42.0	44.1	55.9	100.0	100.0	0.0	0.0	0.0
2002	66.5	33.2	27.3	69.6	100.0	100.0	0.0	0.0	0.0
2003	68.0	31.6	22.8	71.5	100.0	100.0	0.0	0.0	0.0
2004	66.9	32.7	24.5	69.8	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-5 Characteristics of 1994 to 2004 Two-Valve Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	1346	0.096	21.5	16.5	21.3	18.4	4164	228	160	12.4	119	0.714	0.0383	38.4
1995	1586	0.105	21.7	16.6	21.8	18.6	4126	235	159	12.4	119	0.694	0.0386	38.4
1996	1328	0.101	22.1	16.8	22.2	18.9	4215	225	172	11.8	122	0.777	0.0409	40.0
1997	1186	0.082	21.9	16.7	22.1	18.7	4264	225	176	11.7	123	0.790	0.0412	40.1
1998	1334	0.092	22.5	17.0	22.9	19.3	4207	223	181	11.3	125	0.818	0.0431	40.6
1999	1283	0.084	22.0	16.6	22.4	18.8	4331	229	183	11.4	125	0.806	0.0422	40.8
2000	1325	0.080	22.4	17.0	22.8	19.2	4306	226	182	11.5	125	0.812	0.0423	41.4
2001	959	0.062	22.9	17.3	23.2	19.6	4407	227	194	11.0	127	0.864	0.0441	43.3
2002	890	0.055	22.8	17.3	23.1	19.5	4406	226	194	11.0	127	0.865	0.0441	43.3
2003	1027	0.066	22.5	17.0	22.9	19.2	4574	239	206	10.9	129	0.870	0.0451	44.1
2004	651	0.039	22.7	17.1	23.2	19.4	4487	237	200	10.9	128	0.852	0.0446	43.6

Percent of Two-Valve Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING						
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL		
1994	54.9	4.4	0.4	97.4	100.0	80.2	19.8	0.0	0.0		
1995	62.1	7.9	0.1	98.2	100.0	86.8	13.2	0.0	0.0		
1996	73.9	2.1	0.0	98.3	100.0	100.0	0.0	0.0	0.0		
1997	63.9	4.5	0.0	99.5	100.0	100.0	0.0	0.0	0.0		
1998	77.0	3.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0		
1999	72.6	3.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0		
2000	75.2	3.5	0.0	100.0	100.0	100.0	0.0	0.0	0.0		
2001	78.7	3.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0		
2002	78.1	4.2	0.0	100.0	100.0	100.0	0.0	0.0	0.0		
2003	69.4	16.3	0.0	100.0	100.0	100.0	0.0	0.0	0.0		
2004	74.3	7.1	0.0	100.0	100.0	100.0	0.0	0.0	0.0		

# Appendix L

Table L-6

Characteristics of 1994 to 2004 Three-Valve Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	30	0.002	21.8	16.6	21.8	18.6	3954	175	149	12.5	117	0.854	0.0377	36.7
1995	16	0.001	20.9	15.9	20.9	17.8	4089	180	152	12.6	117	0.844	0.0372	36.5
1996	14	0.001	20.8	15.8	20.8	17.7	4133	180	152	12.7	117	0.844	0.0368	36.7
1997	13	0.001	20.5	15.7	20.4	17.5	4178	180	152	12.8	116	0.844	0.0365	36.6

Percent of Three-Valve Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL
1994	0.0	96.0	1.6	98.4	100.0	100.0	0.0	0.0	0.0
1995	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1996	0.0	26.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1997	0.0	35.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-7

Characteristics of 1994 to 2004 Four-Valve Vans

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	19	0.001	22.8	17.8	22.0	19.5	3893	144	137	13.2	114	0.953	0.0351	37.9
1995	59	0.004	24.5	19.3	23.2	20.9	3679	138	145	12.0	118	1.050	0.0395	38.3
1996	66	0.005	24.8	19.4	23.9	21.2	3817	142	149	12.1	118	1.050	0.0391	40.5
1997	66	0.005	24.9	19.4	24.0	21.2	3831	142	144	12.5	116	1.008	0.0374	40.7
1998	154	0.011	24.6	18.7	24.7	21.0	3975	167	171	11.3	124	1.027	0.0431	41.9
1999	182	0.012	24.6	18.6	25.0	21.0	4137	179	180	11.2	126	1.010	0.0435	43.5
2000	366	0.022	24.2	18.3	24.6	20.7	4167	182	185	11.0	127	1.021	0.0445	43.1
2001	278	0.018	24.2	18.4	24.4	20.7	4233	188	195	10.7	129	1.042	0.0461	43.8
2002	353	0.022	23.7	17.9	24.0	20.2	4362	195	213	10.3	134	1.089	0.0489	44.2
2003	264	0.017	24.4	18.3	25.0	20.8	4334	198	223	9.8	137	1.122	0.0513	45.2
2004	508	0.031	24.4	18.2	25.3	20.8	4511	206	227	9.9	137	1.105	0.0505	47.1

Percent of Four-Valve Vans:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL
1994	12.8	15.1	3.5	96.5	100.0	100.0	0.0	0.0	0.0
1995	57.1	15.7	1.9	98.1	100.0	100.0	0.0	0.0	0.0
1996	87.7	1.8	0.1	99.9	100.0	100.0	0.0	0.0	0.0
1997	92.7	2.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1998	90.3	5.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1999	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2000	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2001	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2002	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2003	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2004	98.6	1.4	0.0	100.0	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-8 Characteristics of 1994 to 2004 Two-Valve SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	1399	0.100	19.8	15.3	19.4	16.9	4233	246	180	11.5	125	0.745	0.0428	35.7
1995	1532	0.101	19.7	15.1	19.3	16.8	4253	250	177	11.6	124	0.730	0.0421	35.7
1996	1579	0.120	19.6	14.9	19.6	16.7	4398	269	191	11.2	127	0.714	0.0439	36.8
1997	1855	0.128	19.3	14.8	19.2	16.5	4539	272	195	11.3	127	0.723	0.0432	37.4
1998	1981	0.137	19.2	14.7	19.2	16.4	4508	271	195	11.3	127	0.720	0.0433	37.0
1999	2057	0.135	19.2	14.7	19.1	16.4	4558	273	204	10.9	129	0.754	0.0449	37.3
2000	2318	0.140	19.4	14.9	19.2	16.5	4567	267	206	10.9	129	0.774	0.0451	37.7
2001	1940	0.124	19.3	14.9	19.0	16.5	4674	269	217	10.6	132	0.814	0.0464	38.4
2002	2181	0.135	19.4	14.8	19.3	16.6	4796	269	232	10.3	135	0.866	0.0483	39.7
2003	1924	0.123	19.3	14.7	19.4	16.5	4988	283	238	10.4	135	0.848	0.0479	41.1
2004	1807	0.109	19.5	14.9	19.5	16.7	5009	280	244	10.2	136	0.872	0.0486	41.6

Percent of Two-Valve SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING					DSL	
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB			
1994	0.0	75.2	14.3	83.8	100.0	84.8	15.2	0.0	0.0		
1995	0.0	78.1	14.5	85.5	100.0	83.0	17.0	0.0	0.0		
1996	0.0	74.9	4.2	95.8	100.0	100.0	0.0	0.0	0.0		
1997	0.0	76.1	7.5	92.5	100.0	100.0	0.0	0.0	0.0		
1998	0.0	73.6	5.3	94.7	100.0	100.0	0.0	0.0	0.0		
1999	0.0	66.1	4.6	95.4	100.0	100.0	0.0	0.0	0.0		
2000	0.0	69.7	4.1	95.9	100.0	100.0	0.0	0.0	0.0		
2001	1.8	61.6	3.5	96.5	100.0	100.0	0.0	0.0	0.0		
2002	3.3	64.2	2.6	97.4	100.0	100.0	0.0	0.0	0.0		
2003	1.9	60.1	0.8	99.2	100.0	100.0	0.0	0.0	0.0		
2004	4.1	64.5	2.3	97.7	100.0	100.0	0.0	0.0	0.0		

# Appendix L

Table L-9

Characteristics of 1994 to 2004 Three-Valve SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	69	0.005	17.7	14.0	16.6	15.1	4378	180	150	13.4	114	0.833	0.0343	33.0
1998	39	0.003	21.3	16.5	20.8	18.2	4500	195	215	10.3	133	1.103	0.0478	40.9
1999	52	0.003	20.3	15.8	19.6	17.3	5000	215	232	10.7	133	1.080	0.0463	43.4
2001	40	0.003	20.8	16.1	20.2	17.7	5500	214	231	11.6	129	1.085	0.0420	48.8
2002	43	0.003	19.1	15.0	18.1	16.2	5000	227	237	10.5	135	1.059	0.0474	40.7
2003	44	0.003	18.9	14.9	17.9	16.1	5211	232	242	10.7	134	1.057	0.0461	42.0
2004	40	0.002	18.9	14.9	17.7	16.1	5523	243	244	11.0	132	1.008	0.0442	44.4

Percent of Three-Valve SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL
1994	0.0	100.0	25.3	74.7	100.0	100.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
1999	0.0	31.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2001	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2002	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2003	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0
2004	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0



# Appendix L

Table L-10

Characteristics of 1994 to 2004 Four-Valve SUVs

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	117	0.008	19.8	15.7	18.4	16.8	4037	192	171	11.5	123	0.905	0.0420	34.0
1995	284	0.019	19.1	15.1	18.1	16.3	4266	189	168	12.1	121	0.887	0.0394	34.7
1996	310	0.024	22.5	17.8	21.0	19.1	3700	164	154	11.7	121	0.955	0.0411	35.4
1997	595	0.041	23.0	18.3	21.5	19.6	3673	165	156	11.5	122	0.961	0.0422	36.1
1998	561	0.039	23.8	18.8	22.3	20.2	3735	161	161	11.4	123	1.009	0.0427	37.9
1999	728	0.048	23.3	18.4	21.9	19.8	3907	170	177	10.9	127	1.057	0.0452	38.8
2000	824	0.050	22.3	17.5	21.1	19.0	4153	181	183	11.1	126	1.037	0.0442	39.4
2001	1349	0.086	22.6	17.5	21.8	19.2	4046	182	195	10.4	131	1.088	0.0482	39.0
2002	1954	0.121	22.1	17.1	21.7	18.9	4183	199	209	10.1	134	1.061	0.0499	39.5
2003	2285	0.146	22.3	17.1	22.0	19.0	4282	204	217	10.0	135	1.072	0.0505	40.8
2004	2473	0.149	22.3	17.1	22.1	19.0	4354	211	226	9.8	138	1.084	0.0519	41.5

Percent of Four-Valve SUVs:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL
1994	0.0	73.0	23.8	76.2	100.0	100.0	0.0	0.0	0.0
1995	0.0	85.2	19.7	80.3	100.0	100.0	0.0	0.0	0.0
1996	5.8	51.2	24.1	75.9	100.0	100.0	0.0	0.0	0.0
1997	5.1	57.5	24.6	71.8	100.0	100.0	0.0	0.0	0.0
1998	8.4	66.9	18.9	81.1	100.0	100.0	0.0	0.0	0.0
1999	10.3	66.4	11.8	88.2	100.0	100.0	0.0	0.0	0.0
2000	9.5	60.0	7.9	92.1	100.0	100.0	0.0	0.0	0.0
2001	19.1	63.7	5.8	94.2	100.0	100.0	0.0	0.0	0.0
2002	16.6	62.5	5.3	94.5	100.0	100.0	0.0	0.0	0.0
2003	21.3	61.9	3.2	92.7	100.0	100.0	0.0	0.0	0.0
2004	17.1	68.0	3.7	92.9	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-11 Characteristics of 1994 to 2004 Five-Valve SUVs

MODEL YEAR	SALES (000)	FRAC	<---- FUEL LAB 55/45	ECONOMY ADJ CITY	>---- ADJ HWY	55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
2004	14	0.001	18.0	13.6	18.3	15.4	5500	255	310	9.0	150	1.216	0.0563	42.3

Percent of Five-Valve SUVs:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL
2004	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-12 Characteristics of 1994 to 2004 Two-Valve Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	2532	0.181	21.1	16.3	20.7	18.0	4061	249	163	12.0	120	0.682	0.0399	36.8
1995	2146	0.142	20.3	15.6	20.0	17.3	4215	261	168	12.0	121	0.678	0.0397	36.9
1996	1696	0.129	20.4	15.6	20.2	17.4	4302	265	182	11.6	124	0.708	0.0418	37.8
1997	2247	0.155	20.2	15.5	20.1	17.3	4481	272	199	11.1	128	0.744	0.0441	38.9
1998	2144	0.148	20.3	15.5	20.3	17.4	4383	263	194	11.2	127	0.751	0.0439	38.3
1999	2354	0.155	19.7	15.1	19.4	16.8	4564	275	208	10.9	130	0.763	0.0453	38.3
2000	2280	0.138	20.3	15.6	20.0	17.3	4391	262	205	10.8	130	0.786	0.0461	38.1
2001	2301	0.148	19.3	14.8	19.1	16.5	4636	278	220	10.5	133	0.798	0.0472	38.3
2002	1958	0.122	19.0	14.6	18.7	16.2	4832	287	236	10.3	136	0.822	0.0487	39.2
2003	2014	0.129	19.7	15.2	19.3	16.8	4714	273	232	10.4	135	0.845	0.0487	39.5
2004	1604	0.097	19.6	15.1	19.3	16.7	4933	289	249	10.1	138	0.859	0.0503	41.2

Percent of Two-Valve Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL	METERING			
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL
1994	0.0	29.2	39.8	59.2	99.2	67.8	31.4	0.8	0.0
1995	0.0	31.6	38.6	61.1	100.0	67.8	32.2	0.0	0.0
1996	0.0	28.0	30.2	69.8	99.8	99.8	0.0	0.0	0.2
1997	0.0	35.2	22.1	77.9	99.9	99.9	0.0	0.0	0.1
1998	0.0	34.1	23.0	77.0	99.9	99.9	0.0	0.0	0.1
1999	0.0	45.6	15.1	84.9	100.0	100.0	0.0	0.0	0.0
2000	0.0	38.1	14.8	85.2	100.0	100.0	0.0	0.0	0.0
2001	0.0	39.9	9.1	90.9	100.0	100.0	0.0	0.0	0.0
2002	0.0	44.7	6.1	93.9	100.0	100.0	0.0	0.0	0.0
2003	0.0	40.8	8.3	91.7	100.0	100.0	0.0	0.0	0.0
2004	0.0	39.3	7.0	93.0	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-13 Characteristics of 1994 to 2004 Three-Valve Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ	ECONOMY ADJ	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	57	0.004	19.1	14.9	18.3	16.3	3892	180	150	12.1	118	0.833	0.0386	31.7
1996	89	0.007	25.2	19.9	23.5	21.4	3355	146	134	11.8	118	0.918	0.0404	35.9
1997	131	0.009	24.9	19.8	23.2	21.2	3349	146	134	11.7	118	0.918	0.0405	35.5
2004	356	0.021	19.0	14.6	18.7	16.2	5743	330	300	9.6	145	0.909	0.0523	46.6

Percent of Three-Valve Pickup Trucks:

MODEL YEAR	DRIVETRAIN FRONT	4WD	TRANSMISSION MANUAL	LOCK	FUEL FI	METERING PORT	TBI	CARB	DSL
1994	0.0	78.4	68.1	31.9	100.0	100.0	0.0	0.0	0.0
1996	0.0	18.0	76.8	23.2	100.0	100.0	0.0	0.0	0.0
1997	0.0	20.8	79.6	20.4	100.0	100.0	0.0	0.0	0.0
2004	0.0	48.6	0.0	100.0	100.0	100.0	0.0	0.0	0.0

# Appendix L

Table L-14 Characteristics of 1994 to 2004 Four-Valve Pickup Trucks

MODEL YEAR	SALES (000)	FRAC	<---- LAB 55/45	FUEL ADJ CITY	ECONOMY ADJ HWY	----> ADJ 55/45	WGHT LB	ENGINE CID	HP	0-60 TIME	TOP SPD	HP/ CID	HP/ WT	TON -MPG
1994	2	0.000	26.7	21.1	25.1	22.7	3500	164	150	11.1	122	0.914	0.0423	39.7
1995	125	0.008	22.6	18.0	21.1	19.2	3612	178	148	11.6	120	0.842	0.0414	34.8
1996	171	0.013	23.6	18.7	21.9	20.1	3505	174	161	10.6	126	0.928	0.0460	35.1
1997	30	0.002	20.4	16.3	18.8	17.4	4085	203	187	10.7	128	0.922	0.0457	35.5
1998	271	0.019	24.3	19.2	22.7	20.7	3489	162	153	11.0	123	0.946	0.0439	36.2
1999	196	0.013	23.6	18.7	21.9	20.0	3544	170	159	10.8	125	0.935	0.0449	35.6
2000	332	0.020	21.6	17.1	20.2	18.4	3993	204	186	10.6	128	0.918	0.0461	36.7
2001	321	0.021	22.2	17.7	20.7	18.9	3930	196	180	10.8	127	0.928	0.0455	37.3
2002	423	0.026	21.8	17.3	20.4	18.6	4031	200	181	11.0	126	0.912	0.0445	37.7
2003	359	0.023	22.3	17.6	21.1	19.0	4004	200	182	10.8	127	0.926	0.0452	38.4
2004	569	0.034	21.3	16.5	20.7	18.1	4420	228	210	10.5	132	0.938	0.0471	40.1

Percent of Four-Valve Pickup Trucks:

MODEL YEAR	DRIVETRAIN		TRANSMISSION		FUEL METERING				
	FRONT	4WD	MANUAL	LOCK	FI	PORT	TBI	CARB	DSL
1994	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0
1995	0.0	56.7	56.8	32.2	100.0	100.0	0.0	0.0	0.0
1996	0.0	48.0	57.4	27.0	100.0	100.0	0.0	0.0	0.0
1997	0.0	54.7	26.4	73.6	100.0	100.0	0.0	0.0	0.0
1998	0.0	40.4	61.3	25.2	100.0	100.0	0.0	0.0	0.0
1999	0.0	40.6	46.4	41.4	100.0	100.0	0.0	0.0	0.0
2000	0.0	40.2	29.2	64.6	100.0	100.0	0.0	0.0	0.0
2001	0.0	33.7	29.0	64.4	100.0	100.0	0.0	0.0	0.0
2002	0.0	31.5	25.3	69.8	100.0	100.0	0.0	0.0	0.0
2003	0.0	33.9	21.0	72.9	100.0	100.0	0.0	0.0	0.0
2004	0.0	39.1	15.3	81.7	100.0	100.0	0.0	0.0	0.0

# Appendix M

Table M-1

## Model Year 1975 to 2004 Cars

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.9	12.4	12.8	18.1	26.7	22.5	21.5	18.4	13.4
1976	14.2	14.5	13.8	21.4	28.0	23.4	22.8	18.4	14.9
1977	15.2	14.4	13.9	24.6	30.8	24.6	23.1	19.5	15.6
1978	16.4	16.1	16.4	23.0	28.8	23.2	23.0	19.1	17.0
1979	16.5	16.6	18.1	20.4	24.6	24.4	22.7	20.1	17.3
1980	18.8	19.1	20.0	23.3	24.6	26.3	26.4	23.1	20.0
1981	20.0	20.0	23.0	26.4	26.0	29.1	25.8	22.7	21.4
1982	21.0	21.1	23.4	26.0	28.2	28.1	26.0	23.3	22.3
1983	20.2	21.1	23.6	26.9	29.9	25.6	27.7	22.7	22.0
1984	21.0	22.2	23.4	27.9	29.9	24.3	26.9	22.4	22.4
1985	22.0	22.5	23.4	27.3	28.7	25.6	25.1	21.4	23.0
1986	23.3	23.0	24.2	27.5	28.6	25.2	25.8	21.9	23.9
1987	23.5	22.9	23.9	28.1	27.9	24.7	25.1	21.9	24.0
1988	24.2	23.1	24.7	27.9	27.1	25.7	26.2	21.4	24.5
1989	23.6	23.2	24.2	27.2	26.6	25.8	25.7	20.4	24.1
1990	23.4	22.8	23.8	25.9	25.8	24.6	24.2	20.0	23.8
1991	23.3	23.4	23.7	26.1	25.9	25.4	24.7	20.1	23.9
1992	22.9	23.1	23.5	24.6	26.5	24.9	25.5	20.7	23.6
1993	23.5	23.7	23.9	24.7	27.5	23.1	24.9	21.2	24.0
1994	23.6	23.2	23.2	24.8	27.4	24.1	25.5	21.1	23.9
1995	23.4	23.6	24.3	25.6	28.0	24.6	25.0	21.2	24.2
1996	24.1	22.8	23.8	25.2	27.2	24.2	25.8	22.3	24.2
1997	24.1	23.1	23.8	25.4	27.5	24.6	25.3	21.5	24.3
1998	23.6	23.5	24.6	25.8	27.3	24.6	25.8	21.4	24.4
1999	23.5	23.5	23.8	25.9	26.4	24.3	25.3	21.2	24.1
2000	23.7	23.2	24.0	26.1	26.5	24.6	23.9	20.9	24.1
2001	24.1	23.0	24.2	26.7	27.5	24.3	24.2	20.9	24.4
2002	24.4	23.3	24.0	26.2	27.3	24.9	24.7	21.9	24.6
2003	24.5	22.7	24.2	27.5	27.9	25.0	23.8	22.3	24.8
2004	24.9	21.9	23.8	27.6	27.7	24.9	24.2	22.1	24.6

# Appendix M

Table M-2

## Model Year 1975 to 2004 Wagons

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.8	12.3	13.2	19.4	0.0	23.3	17.8	18.7	13.8
1976	13.5	14.2	14.5	21.0	25.1	23.8	23.4	19.2	14.7
1977	14.9	14.2	14.1	23.7	27.1	24.5	23.0	20.6	15.3
1978	15.8	15.8	15.1	21.7	26.7	22.0	21.7	17.9	16.4
1979	15.7	16.9	15.5	21.2	25.3	21.3	23.7	21.4	16.7
1980	18.3	19.4	16.3	23.3	27.6	34.1	27.3	25.3	20.1
1981	19.8	21.4	22.0	24.7	28.6	34.5	26.7	23.4	21.8
1982	19.8	21.5	23.8	24.9	31.2	25.4	27.2	24.0	21.6
1983	20.4	22.0	23.5	29.5	31.2	26.1	29.5	24.3	23.2
1984	21.2	22.3	23.9	28.8	30.7	21.2	29.9	21.5	22.6
1985	21.7	22.8	23.0	29.9	29.5	22.1	25.6	21.1	23.4
1986	22.3	23.0	23.8	27.3	29.4	19.5	24.1	21.5	23.1
1987	22.5	22.7	23.5	27.7	29.1	22.7	23.7	20.7	23.2
1988	23.3	22.7	24.4	26.8	29.0	26.4	23.8	19.8	23.5
1989	22.7	22.0	24.5	26.1	29.5	25.0	27.5	19.7	22.9
1990	22.8	21.6	21.4	25.5	29.9	24.2	28.5	22.1	22.8
1991	22.5	24.5	18.1	26.2	24.5	23.0	0.0	19.7	23.9
1992	22.7	24.2	18.1	24.6	23.1	22.8	0.0	19.9	23.5
1993	23.5	26.5	22.2	25.3	23.5	20.3	0.0	20.8	25.3
1994	23.4	26.3	21.7	25.2	24.7	20.2	0.0	20.1	25.1
1995	23.9	26.3	21.9	26.3	24.8	20.3	0.0	20.9	25.3
1996	23.5	23.5	25.8	26.1	24.3	23.6	0.0	0.0	23.7
1997	24.7	25.0	26.0	0.0	23.1	21.0	0.0	0.0	24.8
1998	24.9	23.6	24.0	0.0	0.0	22.1	0.0	0.0	24.2
1999	24.4	23.3	23.8	0.0	0.0	22.7	0.0	20.2	23.7
2000	24.2	23.6	24.3	0.0	0.0	21.4	0.0	21.0	23.6
2001	24.0	23.0	23.0	0.0	0.0	20.7	0.0	21.3	23.0
2002	23.6	23.7	21.7	0.0	0.0	23.7	0.0	21.8	22.8
2003	23.9	22.4	21.9	30.0	0.0	24.0	0.0	22.1	23.7
2004	25.8	22.9	21.8	30.5	0.0	23.7	0.0	22.1	24.3

# Appendix M

Table M-3

## Model Year 1975 to 2004 Cars and Wagons

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.9	12.4	12.8	18.8	26.7	22.6	21.4	18.5	13.5
1976	14.2	14.5	14.0	21.3	27.8	23.4	22.9	18.5	14.9
1977	15.2	14.4	13.9	24.5	30.2	24.6	23.1	19.6	15.6
1978	16.3	16.1	16.2	22.8	28.6	23.2	22.8	18.9	16.9
1979	16.4	16.6	17.8	20.5	24.7	24.4	22.8	20.1	17.2
1980	18.8	19.2	19.8	23.3	24.8	26.6	26.6	23.1	20.0
1981	20.0	20.2	22.9	26.3	26.2	29.2	25.9	22.7	21.4
1982	20.9	21.2	23.4	25.9	28.4	28.0	26.1	23.3	22.2
1983	20.3	21.2	23.6	27.7	30.0	25.6	27.9	22.8	22.1
1984	21.0	22.2	23.5	28.0	29.9	24.2	27.2	22.3	22.4
1985	21.9	22.6	23.4	28.0	28.8	25.4	25.1	21.4	23.0
1986	23.2	23.0	24.1	27.5	28.6	25.1	25.5	21.9	23.8
1987	23.4	22.8	23.9	28.0	28.0	24.6	25.0	21.9	24.0
1988	24.2	23.1	24.7	27.8	27.1	25.8	26.0	21.4	24.4
1989	23.6	23.1	24.2	27.1	26.7	25.8	25.7	20.4	24.0
1990	23.4	22.7	23.8	25.9	25.9	24.6	24.2	20.0	23.7
1991	23.3	23.5	23.7	26.1	25.8	25.3	24.7	20.1	23.9
1992	22.9	23.1	23.5	24.6	26.4	24.8	25.5	20.7	23.6
1993	23.5	24.0	23.9	24.7	27.4	22.9	24.9	21.2	24.1
1994	23.6	23.5	23.2	24.8	27.4	24.0	25.5	21.1	24.0
1995	23.4	23.9	24.3	25.6	27.9	24.4	25.0	21.2	24.2
1996	24.1	22.8	23.8	25.2	27.1	24.1	25.8	22.3	24.2
1997	24.1	23.3	23.9	25.4	27.4	24.5	25.3	21.5	24.3
1998	23.7	23.5	24.6	25.8	27.3	24.5	25.8	21.4	24.4
1999	23.5	23.5	23.8	25.9	26.4	24.2	25.3	21.1	24.1
2000	23.7	23.2	24.0	26.1	26.5	24.3	23.9	20.9	24.1
2001	24.1	23.0	24.1	26.7	27.5	24.0	24.2	21.0	24.3
2002	24.4	23.3	23.8	26.2	27.3	24.8	24.7	21.9	24.5
2003	24.5	22.7	24.0	27.7	27.9	24.9	23.8	22.3	24.7
2004	24.9	22.0	23.5	27.8	27.7	24.8	24.2	22.1	24.6



# Appendix M

Table M-4

## Model Year 1975 to 2004 Vans

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.2	10.7	10.7	17.5	0.0	17.6	0.0	0.0	11.1
1976	11.9	11.4	12.1	0.0	0.0	17.0	0.0	0.0	11.8
1977	12.7	13.2	11.7	0.0	0.0	18.9	0.0	0.0	12.5
1978	11.9	12.8	11.4	0.0	0.0	17.0	0.0	0.0	12.1
1979	12.4	10.3	11.7	0.0	0.0	16.0	0.0	0.0	11.5
1980	14.2	13.8	14.1	0.0	0.0	16.2	0.0	0.0	14.1
1981	15.3	14.3	14.8	0.0	0.0	15.8	0.0	0.0	14.8
1982	15.2	13.8	15.0	0.0	0.0	18.4	0.0	0.0	14.7
1983	16.0	13.8	15.3	0.0	0.0	16.4	0.0	17.1	15.1
1984	15.5	14.1	17.2	22.9	0.0	17.6	0.0	23.2	16.1
1985	15.9	13.8	17.9	22.6	0.0	18.1	0.0	18.5	16.5
1986	16.5	16.8	18.7	22.3	0.0	16.3	0.0	17.6	17.5
1987	16.9	16.7	19.0	21.6	0.0	16.1	19.0	0.0	17.8
1988	17.2	16.6	19.6	21.9	0.0	16.9	19.0	0.0	18.0
1989	17.3	17.1	19.3	21.9	0.0	17.7	18.9	0.0	18.0
1990	17.6	16.6	19.6	0.0	0.0	17.6	21.7	0.0	18.1
1991	17.8	17.0	19.4	19.5	0.0	17.7	22.2	0.0	18.3
1992	17.8	17.0	19.5	19.0	0.0	0.0	21.8	0.0	18.3
1993	17.7	17.8	20.2	18.6	0.0	17.9	18.6	0.0	18.7
1994	17.9	17.1	19.2	18.8	0.0	17.1	19.4	0.0	18.4
1995	17.6	18.5	19.6	19.2	21.7	16.6	19.6	0.0	18.6
1996	18.3	18.3	19.4	19.1	24.3	0.0	19.6	0.0	19.0
1997	18.7	17.7	19.4	19.0	21.2	15.8	19.3	0.0	18.8
1998	18.9	19.0	19.9	20.7	23.0	0.0	19.4	0.0	19.4
1999	18.8	17.9	19.6	20.6	20.6	16.3	19.7	0.0	19.0
2000	18.9	18.6	20.0	20.6	20.5	16.2	19.5	0.0	19.5
2001	19.6	19.1	20.0	21.1	20.5	17.6	19.3	0.0	19.8
2002	19.1	18.8	20.0	21.1	20.7	17.8	19.3	0.0	19.7
2003	18.3	18.9	20.7	21.1	20.7	17.5	0.0	0.0	19.5
2004	19.4	18.6	20.2	21.9	20.7	0.0	21.1	0.0	20.0

# Appendix M

Table M-5

## Model Year 1975 to 2004 SUVs

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	10.0	12.3	11.1	10.2	0.0	0.0	0.0	0.0	11.0
1976	11.1	12.8	11.6	9.3	0.0	0.0	0.0	0.0	11.7
1977	12.5	13.4	12.0	11.6	0.0	0.0	0.0	0.0	12.8
1978	11.9	12.7	11.5	10.9	0.0	0.0	0.0	0.0	12.3
1979	9.5	11.6	10.6	11.7	0.0	0.0	0.0	11.2	10.6
1980	12.7	13.5	11.7	11.7	0.0	0.0	0.0	14.5	13.2
1981	13.9	14.6	12.8	12.2	0.0	0.0	0.0	0.0	14.3
1982	16.6	14.5	12.9	12.1	0.0	0.0	0.0	0.0	15.0
1983	17.8	14.8	13.2	12.0	0.0	0.0	0.0	0.0	16.2
1984	17.6	16.2	11.5	14.7	0.0	0.0	0.0	0.0	16.4
1985	17.8	16.4	12.8	18.0	0.0	0.0	0.0	0.0	16.9
1986	17.5	17.0	13.2	19.8	0.0	0.0	0.0	21.8	17.2
1987	18.1	17.6	15.1	19.3	0.0	0.0	15.9	0.0	17.6
1988	18.3	17.1	16.5	17.2	0.0	0.0	15.8	0.0	17.4
1989	17.8	16.3	16.4	16.8	0.0	0.0	16.1	0.0	17.0
1990	17.3	15.9	17.0	16.6	0.0	0.0	16.6	23.1	16.9
1991	18.1	17.1	16.6	15.7	0.0	0.0	16.6	18.0	17.3
1992	17.3	17.1	16.9	14.5	0.0	0.0	16.7	16.3	16.9
1993	17.4	17.2	16.7	14.8	0.0	0.0	16.6	16.3	17.0
1994	17.3	17.1	16.4	14.8	0.0	0.0	15.8	0.0	16.8
1995	17.1	16.5	16.5	15.8	0.0	0.0	16.2	0.0	16.7
1996	17.4	16.7	16.6	19.3	16.6	0.0	16.9	0.0	17.1
1997	17.0	16.0	17.2	19.5	21.0	0.0	16.7	0.0	17.1
1998	18.1	16.0	16.6	19.5	21.6	0.0	16.6	0.0	17.1
1999	17.7	16.0	16.6	19.3	21.8	0.0	16.7	0.0	17.2
2000	17.3	16.1	16.8	19.0	22.1	0.0	16.7	14.9	17.1
2001	17.2	17.0	17.1	19.2	21.5	0.0	16.9	16.4	17.5
2002	17.3	17.1	17.1	19.2	22.4	0.0	16.9	17.2	17.6
2003	17.3	16.6	17.8	19.1	21.3	0.0	18.6	16.7	17.8
2004	17.3	16.9	18.0	19.6	21.1	16.4	18.0	17.2	17.9

# Appendix M

Table M-6

## Model Year 1975 to 2004 Pickups

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.2	10.7	11.0	18.2	0.0	0.0	20.1	0.0	11.9
1976	12.4	11.8	11.9	18.9	0.0	0.0	20.9	0.0	12.4
1977	12.9	13.6	12.3	23.1	0.0	0.0	21.3	0.0	13.6
1978	12.6	13.5	12.3	20.9	0.0	0.0	21.7	0.0	13.3
1979	13.1	12.7	12.8	16.6	0.0	0.0	19.7	0.0	13.2
1980	15.9	15.4	17.3	18.3	0.0	26.7	21.3	15.9	16.5
1981	17.2	16.6	17.2	22.5	0.0	31.4	23.6	0.0	17.9
1982	18.7	16.0	18.3	21.8	0.0	33.3	23.6	0.0	18.5
1983	18.2	17.9	20.5	21.7	0.0	27.9	23.3	0.0	18.9
1984	17.7	17.8	16.8	21.4	0.0	0.0	22.3	21.1	18.3
1985	17.5	17.3	16.4	23.0	0.0	0.0	21.8	0.0	18.2
1986	17.8	18.5	17.5	22.5	0.0	0.0	21.0	0.0	18.9
1987	18.2	18.8	18.4	22.6	0.0	0.0	21.4	19.3	19.2
1988	17.4	18.4	18.4	21.4	0.0	0.0	21.0	17.8	18.3
1989	17.5	17.9	17.5	20.0	0.0	0.0	21.1	14.8	18.0
1990	16.4	18.1	16.8	19.7	0.0	0.0	23.1	18.5	17.7
1991	18.2	18.3	16.7	20.2	0.0	0.0	22.9	15.2	18.5
1992	17.3	17.8	16.7	20.1	0.0	0.0	22.8	0.0	17.9
1993	17.2	18.2	16.4	20.2	0.0	0.0	22.5	0.0	18.0
1994	17.1	18.5	15.8	20.7	0.0	0.0	21.8	0.0	17.9
1995	17.2	17.5	15.3	19.8	0.0	0.0	21.2	0.0	17.4
1996	18.2	18.3	14.8	20.1	0.0	0.0	21.4	0.0	17.7
1997	17.5	18.1	15.1	17.4	0.0	0.0	21.2	0.0	17.5
1998	18.0	17.9	15.4	20.2	0.0	0.0	21.7	0.0	17.7
1999	16.9	17.5	15.2	19.7	0.0	0.0	19.8	0.0	17.0
2000	17.8	17.6	15.7	17.7	0.0	0.0	18.6	0.0	17.5
2001	17.4	16.9	14.8	18.0	0.0	0.0	18.9	0.0	16.8
2002	16.3	17.1	15.3	17.8	0.0	0.0	18.7	0.0	16.6
2003	17.2	17.2	15.8	17.9	0.0	0.0	19.1	0.0	17.1
2004	17.1	17.0	16.1	17.4	0.0	0.0	16.8	0.0	17.0

# Appendix M

Table M-7

## Model Year 1975 to 2004 Trucks

### In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.0	10.9	10.8	16.1	0.0	17.6	20.1	0.0	11.6
1976	12.2	11.8	12.0	16.0	0.0	17.0	20.9	0.0	12.2
1977	12.8	13.5	12.0	19.5	0.0	18.9	21.3	0.0	13.3
1978	12.4	13.3	11.8	18.1	0.0	17.0	21.7	0.0	12.9
1979	12.5	12.1	12.2	16.4	0.0	16.0	19.7	11.2	12.5
1980	15.3	14.8	16.0	18.2	0.0	21.5	21.3	14.7	15.8
1981	16.7	16.0	16.1	22.3	0.0	25.1	23.6	0.0	17.1
1982	17.9	15.3	16.7	21.4	0.0	23.6	23.6	0.0	17.4
1983	17.7	16.7	18.5	21.2	0.0	17.3	23.3	17.1	17.8
1984	17.2	16.9	16.5	21.2	0.0	17.6	22.3	21.8	17.4
1985	17.2	16.4	16.9	22.5	0.0	18.1	21.8	18.5	17.5
1986	17.4	17.8	17.9	22.2	0.0	16.3	21.0	17.6	18.3
1987	17.8	18.1	18.4	22.0	0.0	16.1	20.0	19.3	18.4
1988	17.6	17.8	18.4	20.7	0.0	16.9	19.4	17.8	18.1
1989	17.5	17.4	18.0	19.7	0.0	17.7	20.2	14.8	17.8
1990	16.9	17.4	18.3	18.6	0.0	17.6	21.6	20.5	17.7
1991	18.1	17.6	18.1	19.0	0.0	17.7	21.1	17.8	18.1
1992	17.4	17.4	18.3	18.6	0.0	0.0	20.4	16.3	17.8
1993	17.4	17.8	18.2	18.8	0.0	17.9	20.2	16.3	17.9
1994	17.3	17.9	17.5	18.7	0.0	17.1	19.5	0.0	17.7
1995	17.3	17.6	17.2	18.0	21.7	16.6	19.1	0.0	17.5
1996	17.8	17.7	17.2	19.7	19.2	0.0	19.5	0.0	17.8
1997	17.5	17.2	17.3	19.3	21.0	15.8	19.0	0.0	17.6
1998	18.2	17.3	17.2	20.0	21.7	0.0	19.0	0.0	17.8
1999	17.5	17.0	17.1	19.6	21.5	16.3	18.1	0.0	17.5
2000	17.8	17.1	17.5	18.7	21.3	16.2	17.7	14.9	17.7
2001	17.6	17.2	16.9	19.0	21.1	17.6	17.6	16.4	17.6
2002	17.1	17.3	17.3	18.9	21.6	17.8	17.6	17.2	17.6
2003	17.4	17.1	17.9	18.7	21.1	17.5	18.7	16.7	17.8
2004	17.5	17.1	17.8	19.2	21.0	16.4	18.0	17.2	17.9

# Appendix M

Table M-8

Model Year 1975 to 2004 All

In-use Adjusted 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	12.7	12.0	12.4	18.4	26.7	22.6	21.1	18.5	13.1
1976	13.7	13.6	13.5	20.5	27.8	23.4	22.4	18.5	14.2
1977	14.7	14.1	13.5	23.6	30.2	24.6	22.7	19.6	15.1
1978	15.3	15.1	14.9	21.9	28.6	23.1	22.6	18.9	15.8
1979	15.4	15.0	16.0	19.5	24.7	23.9	22.3	18.3	15.9
1980	18.3	17.8	18.9	22.1	24.8	26.0	25.4	22.1	19.2
1981	19.4	18.8	21.6	25.4	26.2	28.6	25.5	22.7	20.5
1982	20.3	19.3	21.5	24.8	28.4	27.4	25.5	23.3	21.1
1983	19.7	19.5	22.1	26.0	30.0	24.5	27.0	22.7	21.0
1984	20.2	20.1	21.0	25.2	29.9	23.6	26.0	22.3	21.0
1985	20.7	20.3	20.9	25.6	28.8	24.7	24.1	21.4	21.3
1986	21.6	20.7	21.8	25.0	28.6	24.6	23.4	21.9	21.9
1987	21.8	20.7	21.8	25.5	28.0	24.0	23.7	21.9	22.1
1988	21.7	21.0	21.7	25.2	27.1	25.5	23.9	21.4	22.1
1989	21.3	20.9	21.1	24.6	26.7	25.5	24.2	20.3	21.7
1990	21.0	20.5	21.0	23.7	25.9	24.2	23.4	20.1	21.5
1991	21.3	20.9	21.2	23.5	25.8	24.9	23.5	19.3	21.7
1992	20.8	20.4	20.7	22.8	26.4	24.8	24.1	19.6	21.3
1993	20.9	21.2	20.5	22.7	27.4	22.0	23.2	19.7	21.4
1994	20.6	20.6	19.7	22.5	27.4	24.0	23.3	21.1	21.0
1995	20.5	20.8	20.3	23.0	27.6	24.3	22.2	21.2	21.1
1996	21.3	20.1	19.5	23.3	26.5	24.1	23.7	22.3	21.2
1997	21.0	19.7	19.7	23.1	26.4	24.3	22.7	21.5	20.9
1998	21.0	19.7	19.4	23.4	26.4	24.5	23.1	21.4	20.9
1999	20.5	19.6	19.2	23.1	25.3	24.1	22.6	21.1	20.6
2000	20.6	19.7	19.9	22.4	25.1	24.2	20.7	20.7	20.7
2001	20.6	19.4	19.7	22.6	25.5	23.9	20.5	19.9	20.7
2002	20.0	19.4	19.8	22.2	25.4	24.7	21.3	21.0	20.6
2003	19.9	18.8	20.2	23.1	24.8	24.8	21.7	21.2	20.7
2004	20.6	18.8	20.4	23.0	24.4	23.7	20.6	20.6	20.8

# Appendix M

Table M-9

## Model Year 1975 to 2004 Cars

### Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	15.2	14.6	15.0	21.2	31.4	26.4	25.2	21.6	15.8
1976	16.7	17.0	16.2	25.0	32.9	27.5	26.8	21.6	17.5
1977	17.9	17.0	16.3	28.8	36.2	28.8	27.2	22.9	18.4
1978	19.2	18.9	19.2	27.0	34.0	27.2	27.0	22.3	20.0
1979	19.4	19.4	21.2	23.9	29.0	28.6	26.6	23.6	20.3
1980	22.1	22.4	23.5	27.4	28.9	30.8	31.1	27.2	23.5
1981	23.4	23.5	27.0	31.1	30.6	34.1	30.4	26.7	25.1
1982	24.6	24.8	27.4	30.5	33.2	32.9	30.5	27.3	26.1
1983	23.7	24.8	27.7	31.7	35.2	30.0	32.5	26.7	25.7
1984	24.5	26.0	27.5	32.8	35.1	28.5	31.6	26.2	26.3
1985	25.7	26.4	27.5	32.1	33.7	30.0	29.4	25.1	26.9
1986	27.2	26.9	28.4	32.3	33.5	29.6	30.2	25.7	28.0
1987	27.4	26.8	28.1	33.0	32.8	29.0	29.4	25.7	28.2
1988	28.3	27.1	29.0	32.7	31.8	30.2	30.7	25.1	28.6
1989	27.6	27.1	28.3	31.9	31.2	30.3	30.2	23.9	28.2
1990	27.4	26.7	27.8	30.4	30.3	28.9	28.3	23.4	27.8
1991	27.2	27.4	27.8	30.6	30.4	29.8	29.0	23.5	28.0
1992	26.8	27.0	27.6	28.9	31.0	29.1	29.9	24.2	27.6
1993	27.4	27.7	28.0	28.9	32.2	27.0	29.1	24.8	28.1
1994	27.5	27.1	27.1	29.0	32.1	28.2	29.8	24.7	28.0
1995	27.4	27.6	28.4	30.0	32.9	28.8	29.2	24.7	28.3
1996	28.2	26.6	27.8	29.5	31.9	28.3	30.2	26.1	28.3
1997	28.1	27.0	27.9	29.8	32.2	28.8	29.6	25.1	28.4
1998	27.6	27.5	28.7	30.2	32.0	28.8	30.2	24.9	28.5
1999	27.4	27.4	27.8	30.4	30.9	28.4	29.6	24.7	28.2
2000	27.6	27.1	28.0	30.5	31.0	28.8	28.0	24.5	28.2
2001	28.1	26.9	28.3	31.3	32.2	28.5	28.3	24.5	28.5
2002	28.5	27.2	28.1	30.7	32.0	29.1	28.9	25.6	28.8
2003	28.6	26.6	28.3	32.2	32.7	29.3	27.8	26.1	29.0
2004	29.1	25.6	27.9	32.3	32.4	29.1	28.3	25.8	28.7

# Appendix M

Table M-10

Model Year 1975 to 2004 Wagons

Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	15.0	14.4	15.5	22.8	0.0	27.2	20.9	21.9	16.1
1976	15.9	16.6	17.0	24.6	29.4	27.9	27.4	22.5	17.3
1977	17.5	16.6	16.5	27.8	31.9	28.7	27.1	24.2	18.0
1978	18.5	18.5	17.7	25.5	31.5	25.7	25.5	21.0	19.2
1979	18.5	19.9	18.2	24.9	29.9	25.0	27.9	25.2	19.7
1980	21.4	22.8	19.2	27.4	32.5	40.1	32.2	29.9	23.6
1981	23.2	25.1	25.8	29.1	33.7	40.6	31.4	27.5	25.6
1982	23.1	25.3	27.9	29.3	36.7	29.8	32.0	28.3	25.3
1983	23.9	25.8	27.7	34.8	36.7	30.6	34.6	28.6	27.2
1984	24.8	26.1	28.1	33.9	36.1	24.8	35.1	25.3	26.4
1985	25.4	26.8	27.0	35.1	34.8	25.9	30.0	24.8	27.5
1986	26.1	27.0	28.0	32.1	34.6	22.8	28.2	25.3	27.1
1987	26.3	26.5	27.6	32.6	34.2	26.7	27.8	24.3	27.2
1988	27.3	26.5	28.7	31.5	34.2	31.0	28.0	23.3	27.6
1989	26.6	25.8	28.8	30.6	34.7	29.3	32.3	23.2	26.9
1990	26.7	25.3	25.1	29.9	35.2	28.3	33.5	25.9	26.7
1991	26.4	28.6	21.2	30.8	28.7	26.9	0.0	23.2	28.0
1992	26.6	28.3	21.3	28.9	27.1	26.7	0.0	23.2	27.5
1993	27.5	31.0	26.0	29.7	27.6	23.7	0.0	24.3	29.6
1994	27.3	30.8	25.4	29.5	29.0	23.6	0.0	23.5	29.4
1995	27.9	30.8	25.7	30.8	29.0	23.7	0.0	24.4	29.6
1996	27.5	27.5	30.2	30.6	28.5	27.6	0.0	0.0	27.7
1997	28.9	29.3	30.4	0.0	27.2	24.6	0.0	0.0	29.0
1998	29.1	27.6	28.1	0.0	0.0	25.9	0.0	0.0	28.3
1999	28.6	27.2	27.9	0.0	0.0	26.5	0.0	23.6	27.7
2000	28.4	27.6	28.4	0.0	0.0	25.0	0.0	24.5	27.7
2001	28.1	26.9	27.0	0.0	0.0	24.2	0.0	24.9	26.9
2002	27.6	27.8	25.4	0.0	0.0	27.7	0.0	25.5	26.7
2003	28.0	26.2	25.6	35.2	0.0	28.0	0.0	25.8	27.8
2004	30.2	26.8	25.6	35.8	0.0	27.7	0.0	25.8	28.5

# Appendix M

Table M-11

Model Year 1975 to 2004 Cars and Wagons									
Laboratory 55/45 Fuel Economy by Marketing Group									
YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	15.2	14.6	15.1	22.0	31.4	26.5	25.0	21.7	15.8
1976	16.7	17.0	16.4	25.0	32.6	27.5	26.9	21.7	17.5
1977	17.9	16.9	16.3	28.7	35.5	28.8	27.2	22.9	18.3
1978	19.2	18.8	19.0	26.8	33.7	27.2	26.8	22.1	19.9
1979	19.3	19.5	20.9	24.0	29.0	28.6	26.8	23.6	20.3
1980	22.0	22.5	23.2	27.4	29.2	31.2	31.2	27.2	23.5
1981	23.4	23.8	26.8	30.9	30.8	34.2	30.5	26.7	25.1
1982	24.4	24.8	27.5	30.4	33.4	32.8	30.7	27.4	26.0
1983	23.7	24.9	27.7	32.6	35.3	30.1	32.7	26.7	25.9
1984	24.6	26.1	27.6	32.9	35.2	28.4	31.9	26.2	26.3
1985	25.7	26.5	27.5	32.8	33.8	29.9	29.5	25.1	27.0
1986	27.1	26.9	28.4	32.3	33.6	29.4	29.9	25.7	27.9
1987	27.3	26.8	28.1	32.9	32.8	28.9	29.3	25.7	28.1
1988	28.2	27.0	29.0	32.7	31.8	30.3	30.6	25.1	28.6
1989	27.5	27.0	28.3	31.8	31.3	30.2	30.2	23.9	28.1
1990	27.3	26.6	27.8	30.4	30.4	28.9	28.4	23.4	27.8
1991	27.2	27.5	27.8	30.6	30.3	29.7	29.0	23.5	28.0
1992	26.8	27.1	27.6	28.9	30.9	29.0	29.9	24.2	27.6
1993	27.4	28.0	28.0	29.0	32.2	26.8	29.1	24.8	28.2
1994	27.5	27.4	27.1	29.1	32.1	28.1	29.8	24.7	28.1
1995	27.4	27.9	28.4	30.0	32.8	28.6	29.2	24.7	28.3
1996	28.1	26.7	27.8	29.5	31.8	28.2	30.2	26.1	28.3
1997	28.2	27.2	27.9	29.8	32.1	28.6	29.6	25.1	28.4
1998	27.6	27.5	28.7	30.2	32.0	28.6	30.2	24.9	28.5
1999	27.5	27.4	27.8	30.4	30.9	28.3	29.6	24.7	28.2
2000	27.7	27.1	28.0	30.5	31.0	28.5	28.0	24.5	28.2
2001	28.1	26.9	28.2	31.3	32.2	28.1	28.3	24.5	28.4
2002	28.5	27.2	27.8	30.7	32.0	29.0	28.9	25.6	28.6
2003	28.6	26.6	28.1	32.4	32.7	29.2	27.8	26.1	28.9
2004	29.1	25.7	27.5	32.6	32.4	29.0	28.3	25.8	28.7



# Appendix M

Table M-12

## Model Year 1975 to 2004 Vans

### Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	14.4	12.6	12.6	20.5	0.0	20.7	0.0	0.0	13.1
1976	14.0	13.4	14.2	0.0	0.0	19.9	0.0	0.0	13.9
1977	15.0	15.5	13.8	0.0	0.0	22.2	0.0	0.0	14.7
1978	14.1	15.0	13.4	0.0	0.0	20.0	0.0	0.0	14.2
1979	14.7	12.1	13.8	0.0	0.0	18.7	0.0	0.0	13.5
1980	16.7	16.2	16.6	0.0	0.0	19.0	0.0	0.0	16.6
1981	18.0	16.8	17.4	0.0	0.0	18.5	0.0	0.0	17.5
1982	17.9	16.2	17.7	0.0	0.0	21.7	0.0	0.0	17.3
1983	18.9	16.3	18.0	0.0	0.0	19.3	0.0	20.2	17.7
1984	18.2	16.6	20.3	27.0	0.0	20.7	0.0	27.4	18.9
1985	18.7	16.2	21.0	26.6	0.0	21.3	0.0	21.6	19.5
1986	19.4	19.7	22.0	26.3	0.0	19.2	0.0	20.8	20.6
1987	19.8	19.6	22.3	25.5	0.0	18.9	22.4	0.0	20.9
1988	20.2	19.4	23.0	25.8	0.0	19.9	22.3	0.0	21.2
1989	20.2	20.0	22.6	25.9	0.0	20.8	22.2	0.0	21.1
1990	20.7	19.5	23.0	0.0	0.0	20.8	25.4	0.0	21.2
1991	20.8	19.9	22.8	22.9	0.0	20.9	26.0	0.0	21.4
1992	20.8	19.9	22.9	22.3	0.0	0.0	25.6	0.0	21.5
1993	20.7	20.9	23.7	21.9	0.0	21.0	21.8	0.0	21.9
1994	21.0	20.0	22.6	22.0	0.0	20.1	22.7	0.0	21.5
1995	20.6	21.6	23.0	22.6	25.5	19.6	23.0	0.0	21.8
1996	21.5	21.4	22.8	22.4	28.5	0.0	22.9	0.0	22.2
1997	21.9	20.7	22.7	22.3	24.9	18.5	22.6	0.0	22.1
1998	22.2	22.3	23.3	24.2	27.0	0.0	22.7	0.0	22.7
1999	22.0	21.0	23.0	24.1	24.1	19.1	23.1	0.0	22.3
2000	22.1	21.8	23.4	24.1	23.9	19.0	22.8	0.0	22.8
2001	22.9	22.4	23.4	24.7	24.0	20.7	22.6	0.0	23.2
2002	22.3	22.1	23.4	24.7	24.2	20.9	22.6	0.0	23.0
2003	21.4	22.2	24.2	24.7	24.2	20.6	0.0	0.0	22.8
2004	22.7	21.7	23.6	25.6	24.2	0.0	24.7	0.0	23.4

# Appendix M

Table M-13

## Model Year 1975 to 2004 SUVs

### Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	11.8	14.5	13.0	12.0	0.0	0.0	0.0	0.0	13.0
1976	13.1	15.0	13.6	10.9	0.0	0.0	0.0	0.0	13.8
1977	14.7	15.8	14.0	13.6	0.0	0.0	0.0	0.0	15.1
1978	14.0	15.0	13.5	12.7	0.0	0.0	0.0	0.0	14.4
1979	11.3	13.7	12.5	13.8	0.0	0.0	0.0	13.1	12.6
1980	14.9	15.9	13.8	13.8	0.0	0.0	0.0	17.1	15.5
1981	16.3	17.2	15.0	14.3	0.0	0.0	0.0	0.0	16.8
1982	19.5	17.1	15.1	14.2	0.0	0.0	0.0	0.0	17.6
1983	20.8	17.4	15.5	14.1	0.0	0.0	0.0	0.0	19.1
1984	20.6	19.1	13.6	17.3	0.0	0.0	0.0	0.0	19.3
1985	20.8	19.3	15.0	21.1	0.0	0.0	0.0	0.0	19.8
1986	20.6	20.0	15.6	23.3	0.0	0.0	0.0	25.6	20.2
1987	21.2	20.6	17.8	22.7	0.0	0.0	18.7	0.0	20.6
1988	21.5	20.1	19.3	20.3	0.0	0.0	18.5	0.0	20.4
1989	20.9	19.2	19.3	19.7	0.0	0.0	19.0	0.0	20.0
1990	20.3	18.6	19.9	19.5	0.0	0.0	19.5	27.3	19.8
1991	21.2	20.1	19.5	18.5	0.0	0.0	19.5	21.3	20.3
1992	20.2	20.0	19.9	17.0	0.0	0.0	19.6	19.2	19.9
1993	20.4	20.1	19.5	17.4	0.0	0.0	19.4	19.2	19.9
1994	20.3	20.0	19.2	17.4	0.0	0.0	18.6	0.0	19.7
1995	20.1	19.4	19.4	18.5	0.0	0.0	19.1	0.0	19.6
1996	20.4	19.5	19.4	22.7	19.4	0.0	19.8	0.0	20.0
1997	19.9	18.7	20.2	22.9	24.7	0.0	19.6	0.0	20.1
1998	21.2	18.7	19.5	22.9	25.4	0.0	19.5	0.0	20.1
1999	20.7	18.7	19.5	22.7	25.7	0.0	19.5	0.0	20.1
2000	20.3	18.8	19.7	22.4	26.0	0.0	19.6	17.5	20.1
2001	20.2	19.9	20.1	22.5	25.3	0.0	19.8	19.2	20.5
2002	20.2	20.1	20.1	22.6	26.3	0.0	19.9	20.1	20.6
2003	20.2	19.4	20.8	22.4	25.0	0.0	21.8	19.5	20.8
2004	20.3	19.7	21.1	23.0	24.7	19.2	21.1	20.1	21.0

# Appendix M

Table M-14

Model Year 1975 to 2004 Pickups

Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	14.3	12.6	13.0	21.3	0.0	0.0	23.6	0.0	14.0
1976	14.6	13.9	14.0	22.1	0.0	0.0	24.5	0.0	14.6
1977	15.2	16.0	14.4	27.2	0.0	0.0	25.0	0.0	16.0
1978	14.8	15.9	14.5	24.6	0.0	0.0	25.6	0.0	15.7
1979	15.5	14.8	15.1	19.5	0.0	0.0	23.2	0.0	15.5
1980	18.6	18.1	20.3	21.5	0.0	31.3	25.1	18.7	19.4
1981	20.2	19.5	20.2	26.5	0.0	36.9	27.7	0.0	21.0
1982	21.9	18.9	21.5	25.6	0.0	39.2	27.8	0.0	21.7
1983	21.4	21.0	24.1	25.5	0.0	32.8	27.4	0.0	22.2
1984	20.8	20.9	19.7	25.1	0.0	0.0	26.2	24.9	21.5
1985	20.5	20.3	19.3	27.0	0.0	0.0	25.7	0.0	21.4
1986	20.9	21.7	20.6	26.4	0.0	0.0	24.7	0.0	22.2
1987	21.3	22.1	21.6	26.6	0.0	0.0	25.1	22.8	22.5
1988	20.4	21.6	21.6	25.1	0.0	0.0	24.7	20.8	21.5
1989	20.5	21.1	20.5	23.5	0.0	0.0	24.8	17.4	21.2
1990	19.2	21.3	19.8	23.1	0.0	0.0	27.1	21.8	20.7
1991	21.4	21.4	19.6	23.8	0.0	0.0	26.9	17.9	21.7
1992	20.3	20.8	19.6	23.7	0.0	0.0	26.7	0.0	20.9
1993	20.2	21.3	19.2	23.8	0.0	0.0	26.4	0.0	21.1
1994	20.0	21.7	18.5	24.3	0.0	0.0	25.6	0.0	21.0
1995	20.2	20.5	18.0	23.3	0.0	0.0	24.9	0.0	20.4
1996	21.3	21.4	17.4	23.6	0.0	0.0	25.2	0.0	20.8
1997	20.5	21.2	17.7	20.4	0.0	0.0	24.9	0.0	20.4
1998	21.1	21.0	18.0	23.7	0.0	0.0	25.5	0.0	20.7
1999	19.8	20.5	17.7	23.2	0.0	0.0	23.3	0.0	19.9
2000	20.8	20.6	18.4	20.8	0.0	0.0	21.8	0.0	20.5
2001	20.4	19.9	17.3	21.2	0.0	0.0	22.2	0.0	19.6
2002	19.1	20.1	17.9	20.9	0.0	0.0	22.0	0.0	19.5
2003	20.2	20.2	18.5	21.0	0.0	0.0	22.4	0.0	20.0
2004	20.0	20.0	18.9	20.4	0.0	0.0	19.7	0.0	19.9

# Appendix M

Table M-15

## Model Year 1975 to 2004 Trucks

### Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	14.1	12.8	12.7	18.9	0.0	20.7	23.6	0.0	13.7
1976	14.3	13.9	14.1	18.8	0.0	19.9	24.5	0.0	14.4
1977	15.1	15.9	14.1	22.9	0.0	22.2	25.0	0.0	15.6
1978	14.6	15.6	13.9	21.3	0.0	20.0	25.6	0.0	15.2
1979	14.7	14.2	14.4	19.2	0.0	18.7	23.2	13.1	14.7
1980	18.0	17.4	18.9	21.4	0.0	25.2	25.1	17.3	18.6
1981	19.6	18.8	18.9	26.2	0.0	29.5	27.7	0.0	20.1
1982	21.1	18.0	19.7	25.2	0.0	27.8	27.8	0.0	20.5
1983	20.8	19.6	21.7	25.0	0.0	20.3	27.4	20.2	20.9
1984	20.2	19.8	19.4	24.9	0.0	20.7	26.2	25.7	20.5
1985	20.2	19.3	19.9	26.5	0.0	21.3	25.7	21.6	20.6
1986	20.4	20.9	21.1	26.1	0.0	19.2	24.7	20.9	21.4
1987	20.9	21.2	21.6	25.9	0.0	18.9	23.5	22.8	21.6
1988	20.6	20.9	21.6	24.4	0.0	19.9	22.7	20.8	21.2
1989	20.6	20.5	21.1	23.2	0.0	20.8	23.7	17.4	20.9
1990	19.8	20.4	21.5	21.8	0.0	20.8	25.3	24.2	20.7
1991	21.2	20.7	21.2	22.4	0.0	20.9	24.8	21.0	21.3
1992	20.4	20.4	21.5	21.9	0.0	0.0	24.0	19.2	20.8
1993	20.4	20.9	21.3	22.1	0.0	21.0	23.7	19.2	21.0
1994	20.3	20.9	20.6	22.0	0.0	20.1	22.9	0.0	20.8
1995	20.2	20.7	20.1	21.2	25.5	19.6	22.4	0.0	20.5
1996	20.9	20.8	20.2	23.1	22.5	0.0	22.9	0.0	20.8
1997	20.5	20.2	20.3	22.6	24.7	18.5	22.3	0.0	20.6
1998	21.3	20.3	20.1	23.4	25.5	0.0	22.3	0.0	20.9
1999	20.5	19.9	20.0	23.0	25.2	19.1	21.2	0.0	20.5
2000	20.8	20.1	20.5	22.0	25.0	19.0	20.8	17.5	20.8
2001	20.6	20.2	19.8	22.3	24.7	20.7	20.7	19.2	20.6
2002	20.0	20.3	20.3	22.2	25.3	20.9	20.7	20.1	20.6
2003	20.4	20.0	21.0	22.0	24.8	20.6	21.9	19.5	20.9
2004	20.5	20.1	20.9	22.6	24.6	19.2	21.1	20.1	20.9

# Appendix M

Table M-16

Model Year 1975 to 2004 All

Laboratory 55/45 Fuel Economy by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	14.9	14.1	14.6	21.6	31.4	26.5	24.7	21.7	15.3
1976	16.1	16.0	15.9	24.0	32.6	27.4	26.3	21.7	16.7
1977	17.3	16.6	15.9	27.7	35.5	28.8	26.7	22.9	17.7
1978	18.0	17.7	17.5	25.7	33.7	27.1	26.5	22.1	18.6
1979	18.1	17.6	18.8	22.9	29.0	28.0	26.2	21.5	18.7
1980	21.4	20.9	22.2	25.9	29.2	30.5	29.8	25.9	22.5
1981	22.8	22.1	25.4	29.9	30.8	33.5	30.0	26.7	24.1
1982	23.8	22.6	25.3	29.1	33.4	32.2	30.0	27.4	24.7
1983	23.1	22.8	26.0	30.5	35.3	28.7	31.7	26.6	24.6
1984	23.6	23.6	24.7	29.7	35.2	27.7	30.5	26.2	24.6
1985	24.2	23.9	24.5	30.0	33.8	29.0	28.4	25.1	25.0
1986	25.3	24.3	25.6	29.4	33.6	28.9	27.5	25.6	25.7
1987	25.5	24.3	25.6	30.0	32.8	28.2	27.8	25.6	25.9
1988	25.5	24.7	25.5	29.6	31.8	30.0	28.1	25.1	25.9
1989	24.9	24.5	24.7	28.9	31.3	29.9	28.4	23.8	25.4
1990	24.6	24.1	24.6	27.8	30.4	28.3	27.5	23.5	25.2
1991	24.9	24.5	24.8	27.5	30.3	29.2	27.6	22.6	25.4
1992	24.3	23.9	24.3	26.8	30.9	29.0	28.2	22.9	24.9
1993	24.5	24.8	24.1	26.7	32.2	25.8	27.1	23.1	25.1
1994	24.1	24.1	23.1	26.4	32.1	28.1	27.3	24.7	24.6
1995	24.0	24.3	23.8	27.0	32.4	28.4	26.1	24.7	24.7
1996	25.0	23.6	22.8	27.4	31.1	28.2	27.7	26.1	24.8
1997	24.5	23.1	23.1	27.1	31.0	28.5	26.6	25.1	24.5
1998	24.6	23.1	22.7	27.4	30.9	28.6	27.1	24.9	24.5
1999	23.9	22.9	22.5	27.1	29.6	28.2	26.5	24.7	24.1
2000	24.1	23.0	23.3	26.2	29.4	28.4	24.3	24.2	24.3
2001	24.1	22.7	23.1	26.5	29.9	28.0	24.1	23.2	24.2
2002	23.4	22.7	23.2	26.0	29.8	28.8	25.0	24.5	24.1
2003	23.3	22.0	23.7	27.1	29.1	29.0	25.4	24.8	24.2
2004	24.1	22.0	23.9	27.0	28.6	27.7	24.1	24.0	24.4

# Appendix M

Table M-17

Model Year 1975 To 2004 Cars									
Inertia Weight by Marketing Group									
YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4468	4038	4232	2746	2000	2352	2589	2761	4070
1976	4358	4079	4141	2742	2000	2335	2546	2809	4044
1977	4140	4211	4179	2622	2057	2347	2536	2727	3935
1978	3743	3802	3682	2610	2113	2405	2509	2662	3571
1979	3713	3543	3423	2707	2312	2388	2501	2769	3468
1980	3337	3133	3024	2621	2337	2379	2468	2716	3091
1981	3395	3057	2804	2554	2350	2399	2535	2855	3079
1982	3306	3030	2967	2576	2363	2470	2575	2759	3038
1983	3406	3091	2971	2744	2389	2520	2522	2923	3120
1984	3311	3085	2925	2711	2387	2620	2652	2965	3090
1985	3282	3105	2971	2777	2440	2642	2749	3179	3091
1986	3126	3141	2909	2768	2575	2642	2776	2967	3025
1987	3146	3165	2883	2821	2638	2682	2874	2934	3013
1988	3119	3210	2891	2778	2771	2666	2776	3023	3034
1989	3157	3249	3020	2829	2805	2714	2836	3198	3088
1990	3234	3334	3128	2959	2888	2882	3025	3362	3167
1991	3228	3245	3122	2919	2898	2887	3080	3429	3146
1992	3289	3379	3171	3096	3004	2939	3026	3548	3233
1993	3247	3289	3170	3143	2968	3081	3096	3627	3210
1994	3266	3382	3274	3143	3047	3069	3034	3648	3251
1995	3331	3366	3188	3175	2985	3083	3143	3740	3265
1996	3295	3440	3266	3203	3040	3118	3121	3468	3275
1997	3303	3398	3292	3231	3013	3117	3121	3551	3273
1998	3363	3337	3213	3313	3172	3189	3283	3559	3304
1999	3404	3371	3405	3303	3219	3228	3340	3583	3361
2000	3433	3433	3332	3260	3194	3228	3381	3625	3365
2001	3437	3453	3330	3241	3189	3281	3305	3678	3365
2002	3403	3447	3357	3351	3218	3369	3368	3640	3378
2003	3467	3661	3391	3217	3282	3437	3433	3611	3425
2004	3415	3694	3483	3297	3332	3416	3463	3581	3455

# Appendix M

Table M-18

Model Year 1975 To 2004 Wagons									
Inertia Weight by Marketing Group									
YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4480	4147	4394	2693	0	2500	3000	2907	3956
1976	4618	4371	4192	2703	2250	2500	2693	2847	4182
1977	4338	4202	4221	2660	2250	2500	2645	2770	4004
1978	3950	3797	4116	2700	2250	2500	2668	2812	3723
1979	3932	3536	3986	2622	2250	2500	2456	3057	3637
1980	3677	3211	3885	2604	2250	2500	2414	3500	3231
1981	3608	2955	2882	2584	2250	2500	2496	2930	3039
1982	3562	3090	2891	2562	2249	2750	2510	3273	3188
1983	3472	3123	2900	2497	2249	2806	2466	2943	3047
1984	3408	3188	2841	2572	2250	3121	2458	3224	3174
1985	3419	3151	3044	2515	2317	3065	2626	3187	3111
1986	3406	3211	2996	2618	2373	3244	2935	3174	3214
1987	3416	3282	3052	2902	2390	2847	2999	3500	3248
1988	3421	3293	2983	2919	2599	2553	2977	3500	3241
1989	3497	3375	2970	2941	2535	2766	2767	3500	3327
1990	3460	3457	3399	2994	2665	3175	2691	3018	3367
1991	3559	3220	4000	2937	3237	3386	0	3462	3304
1992	3552	3295	4000	3073	3500	3358	0	3941	3390
1993	3381	3033	3485	3096	3500	3633	0	3993	3154
1994	3411	3079	3674	3204	3500	3789	0	4000	3216
1995	3350	3043	3727	3230	3500	3702	0	4000	3188
1996	3409	3526	3000	3226	3500	3711	0	0	3452
1997	3230	3300	3000	0	3500	3793	0	0	3280
1998	3215	3468	3568	0	0	3738	0	0	3355
1999	3292	3582	3441	0	0	3675	0	4000	3460
2000	3387	3571	3203	0	0	3611	0	3750	3468
2001	3723	3623	3515	0	0	3881	0	3843	3630
2002	3702	3601	3522	0	0	3694	0	3862	3610
2003	3509	3800	3531	3000	0	3699	0	3863	3520
2004	3400	3717	3884	2946	0	3749	0	3801	3566

# Appendix M

Table M-19

## Model Year 1975 To 2004 Cars and Wagons

### Inertia Weight by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4469	4054	4251	2718	2000	2370	2605	2774	4057
1976	4376	4116	4150	2735	2020	2342	2567	2812	4058
1977	4156	4210	4188	2628	2085	2357	2554	2730	3943
1978	3760	3802	3744	2621	2125	2410	2533	2686	3587
1979	3734	3542	3477	2700	2307	2388	2493	2780	3484
1980	3354	3142	3077	2620	2330	2385	2461	2718	3101
1981	3406	3039	2813	2556	2342	2402	2529	2861	3075
1982	3332	3038	2959	2575	2353	2478	2568	2767	3054
1983	3413	3095	2964	2662	2379	2526	2516	2924	3111
1984	3321	3095	2918	2697	2379	2630	2632	2979	3098
1985	3295	3109	2975	2708	2432	2654	2737	3180	3092
1986	3149	3149	2913	2760	2564	2652	2801	2972	3040
1987	3169	3178	2889	2831	2632	2687	2881	2937	3030
1988	3136	3217	2895	2786	2769	2657	2786	3026	3046
1989	3172	3258	3020	2835	2800	2715	2835	3202	3099
1990	3244	3343	3128	2961	2884	2893	3024	3361	3175
1991	3239	3243	3124	2920	2913	2903	3080	3429	3153
1992	3298	3372	3174	3095	3015	2955	3026	3559	3239
1993	3253	3258	3176	3142	2976	3103	3096	3636	3207
1994	3270	3350	3280	3145	3054	3085	3034	3654	3249
1995	3331	3335	3193	3176	2995	3102	3143	3744	3262
1996	3300	3446	3264	3204	3046	3139	3121	3468	3281
1997	3300	3390	3290	3231	3018	3137	3121	3551	3273
1998	3356	3346	3216	3313	3172	3208	3283	3559	3306
1999	3399	3383	3406	3303	3219	3256	3340	3595	3364
2000	3431	3441	3329	3260	3194	3254	3381	3630	3369
2001	3451	3465	3351	3241	3189	3330	3305	3683	3379
2002	3420	3456	3375	3351	3218	3400	3368	3645	3391
2003	3468	3676	3404	3199	3282	3460	3433	3618	3431
2004	3414	3695	3544	3266	3332	3449	3463	3584	3463



# Appendix M

Table M-20

Model Year 1975 To 2004 Vans									
Inertia Weight by Marketing Group									
YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4183	4135	4262	3500	0	3496	0	0	4195
1976	4224	4081	4326	0	0	3500	0	0	4199
1977	4276	4109	4404	0	0	3500	0	0	4252
1978	4313	4088	4386	0	0	3500	0	0	4249
1979	4552	4664	4450	0	0	3500	0	0	4540
1980	4337	4625	4137	0	0	3618	0	0	4352
1981	4373	4508	4049	0	0	3644	0	0	4323
1982	4447	4543	4030	0	0	3668	0	0	4342
1983	4551	4515	4099	0	0	3624	0	3818	4414
1984	4523	4389	3678	3395	0	3627	0	2940	4074
1985	4287	4464	3644	3274	0	3655	0	4000	3975
1986	4240	4217	3673	3435	0	3764	0	5500	3997
1987	4213	4247	3699	3284	0	3818	3500	0	3972
1988	4209	4357	3790	3515	0	3867	3611	0	4052
1989	4215	4250	3821	3552	0	4042	3737	0	4057
1990	4265	4269	3872	0	0	4020	3451	0	4094
1991	4289	4233	3971	4000	0	4021	3381	0	4132
1992	4303	4375	3939	4000	0	0	3500	0	4151
1993	4363	4265	3814	4000	0	4157	4000	0	4105
1994	4315	4405	3959	4024	0	4259	4000	0	4155
1995	4336	4179	3836	4104	3499	5000	4000	0	4109
1996	4418	4211	4155	4065	3500	0	4000	0	4195
1997	4353	4397	4152	4136	3499	5490	4000	0	4240
1998	4291	4208	4141	4000	3500	0	4000	0	4182
1999	4326	4578	4169	4000	4500	4897	4000	0	4307
2000	4323	4469	4156	4000	4500	5115	4000	0	4276
2001	4274	4459	4430	4000	4500	4849	4000	0	4367
2002	4307	4507	4437	4000	4500	4638	4000	0	4394
2003	4743	4565	4330	4000	4500	5000	0	0	4524
2004	4455	4533	4511	4499	4500	0	4500	0	4497

# Appendix M

Table M-21

## Model Year 1975 To 2004 SUVs Inertia Weight by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4866	3461	4634	4000	0	0	0	0	4201
1976	4905	3626	4694	4081	0	0	0	0	4312
1977	4691	3767	4783	4029	0	0	0	0	4231
1978	4701	3940	4843	4078	0	0	0	0	4269
1979	5151	3998	4659	4039	0	0	0	4374	4509
1980	4900	3876	4615	4001	0	0	0	4443	4236
1981	4947	3901	4504	4238	0	0	0	0	4207
1982	5048	3903	4653	4341	0	0	0	0	4348
1983	4317	3836	4499	4462	0	0	0	0	4136
1984	4232	3706	4633	3938	0	0	0	0	3998
1985	4141	3783	4564	3727	0	0	0	0	4017
1986	3991	3783	4517	4028	0	0	0	2750	3921
1987	3913	3714	4033	3729	0	0	4000	0	3839
1988	3924	3920	3645	4017	0	0	4000	0	3859
1989	4135	4318	3651	4102	0	0	4000	0	4017
1990	4245	4403	3592	4275	0	0	4000	3000	4044
1991	4005	4370	3603	4491	0	0	4000	3442	4070
1992	4097	4359	3514	4515	0	0	4000	3556	4084
1993	4342	4372	3765	4498	0	0	4303	3545	4156
1994	4409	4371	3751	4483	0	0	4352	0	4224
1995	4498	4543	3726	4379	0	0	4204	0	4255
1996	4568	4521	3805	3734	4329	0	4000	0	4283
1997	4730	4729	3821	3632	3688	0	4398	0	4328
1998	4355	4751	4103	3861	3617	0	4398	0	4340
1999	4398	4815	4279	4111	3604	0	4337	0	4399
2000	4672	4811	4221	4174	3616	0	4293	5000	4458
2001	4742	4466	4236	4197	3809	0	4305	4797	4429
2002	4903	4409	4319	4215	3777	0	4296	5000	4511
2003	4968	4863	4326	4301	4020	0	4237	5086	4610
2004	4984	4809	4333	4364	4030	5500	4465	4898	4641

# Appendix M

Table M-22

## Model Year 1975 To 2004 Pickups Inertia Weight by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4072	4175	4337	2750	0	0	2750	0	4011
1976	4193	4218	4347	2818	0	0	2750	0	4121
1977	4214	4181	4344	2780	0	0	2750	0	4091
1978	4209	4212	4208	2865	0	0	2785	0	4104
1979	4417	4140	4018	2814	0	0	2780	0	4142
1980	4111	4012	3368	2864	0	2264	2830	4436	3739
1981	3962	3852	3540	2887	0	2318	2892	0	3679
1982	3833	3881	3463	3012	0	2309	2894	0	3628
1983	3918	3509	3268	3032	0	2516	3040	0	3543
1984	3951	3585	3605	3035	0	0	3156	2500	3618
1985	3917	3689	3688	3107	0	0	3137	0	3642
1986	3883	3633	3531	3129	0	0	3229	0	3574
1987	3748	3583	3535	3113	0	0	3168	3549	3526
1988	4013	3712	3545	3180	0	0	3239	4000	3736
1989	3976	3889	3602	3377	0	0	3238	4000	3803
1990	4249	3903	3852	3396	0	0	3167	3500	3928
1991	3845	3896	3871	3413	0	0	3203	4000	3779
1992	4087	4106	3954	3366	0	0	3228	0	3976
1993	4188	4067	4054	3394	0	0	3257	0	3995
1994	4256	4041	4365	3382	0	0	3332	0	4057
1995	4270	4292	4466	3533	0	0	3365	0	4182
1996	4303	4064	4693	3507	0	0	3354	0	4189
1997	4596	4293	4764	4085	0	0	3349	0	4414
1998	4311	4243	4783	3432	0	0	3603	0	4282
1999	4762	4249	4795	3548	0	0	3787	0	4485
2000	4401	4284	4662	4110	0	0	3918	0	4340
2001	4592	4529	4905	4046	0	0	3880	0	4549
2002	4988	4497	5010	4139	0	0	3943	0	4690
2003	4650	4534	5104	4147	0	0	3944	0	4606
2004	5011	5065	4909	4328	0	0	4888	0	4931

# Appendix M

Table M-23

## Model Year 1975 To 2004 Trucks Inertia Weight by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4159	4087	4306	2965	0	3496	2750	0	4072
1976	4265	4125	4352	3037	0	3500	2750	0	4154
1977	4266	4116	4399	3017	0	3500	2750	0	4135
1978	4272	4146	4331	3066	0	3500	2785	0	4151
1979	4522	4187	4220	2862	0	3500	2780	4374	4251
1980	4202	4072	3620	2879	0	2769	2830	4442	3868
1981	4072	3941	3752	2905	0	2651	2892	0	3805
1982	4006	4005	3710	3042	0	3001	2894	0	3805
1983	4109	3704	3528	3069	0	3487	3040	3818	3763
1984	4116	3716	3718	3132	0	3627	3156	2646	3782
1985	4051	3827	3720	3175	0	3655	3137	4000	3795
1986	3996	3773	3660	3247	0	3764	3229	5432	3737
1987	3915	3749	3658	3208	0	3818	3337	3549	3712
1988	4028	3882	3683	3302	0	3867	3443	4000	3841
1989	4066	4055	3724	3456	0	4042	3351	4000	3921
1990	4253	4057	3799	3674	0	4020	3334	3254	4005
1991	3970	4110	3858	3759	0	4021	3382	3485	3948
1992	4142	4233	3854	3685	0	0	3475	3556	4055
1993	4271	4195	3831	3656	0	4157	3602	3545	4073
1994	4315	4188	3969	3685	0	4259	3717	0	4129
1995	4365	4298	3938	3894	3499	5000	3741	0	4184
1996	4432	4251	4169	3617	3968	0	3693	0	4224
1997	4600	4455	4198	3676	3653	5490	3840	0	4344
1998	4323	4430	4295	3713	3604	0	3985	0	4282
1999	4562	4516	4358	3925	3842	4897	4111	0	4411
2000	4487	4521	4277	4117	4036	5115	4103	5000	4375
2001	4623	4497	4490	4122	4095	4849	4156	4797	4462
2002	4867	4454	4519	4167	4092	4638	4162	5000	4547
2003	4820	4700	4494	4230	4161	5000	4165	5086	4595
2004	4932	4897	4496	4376	4173	5500	4618	4898	4712

# Appendix M

Table M-24

Model Year 1975 To 2004 All									
Inertia Weight by Marketing Group									
YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	4408	4062	4260	2748	2000	2374	2639	2774	4060
1976	4353	4119	4188	2773	2020	2349	2609	2812	4079
1977	4176	4183	4224	2684	2085	2365	2594	2730	3981
1978	3869	3905	3875	2693	2125	2420	2580	2686	3715
1979	3895	3728	3655	2732	2307	2432	2540	2980	3655
1980	3461	3379	3180	2672	2330	2420	2531	2860	3227
1981	3497	3305	2939	2621	2342	2436	2595	2861	3201
1982	3452	3288	3123	2676	2353	2539	2637	2767	3201
1983	3546	3300	3097	2753	2379	2617	2603	2933	3257
1984	3470	3302	3140	2845	2379	2702	2748	2962	3261
1985	3466	3319	3210	2888	2432	2723	2844	3182	3271
1986	3331	3390	3144	2959	2564	2690	2981	2999	3237
1987	3345	3402	3135	2965	2632	2741	2983	2945	3220
1988	3401	3435	3210	2941	2769	2679	2954	3027	3283
1989	3450	3517	3321	3004	2800	2748	2956	3212	3351
1990	3539	3594	3424	3132	2884	2947	3109	3345	3426
1991	3484	3569	3407	3173	2913	2949	3169	3448	3409
1992	3567	3724	3500	3241	3015	2955	3132	3559	3512
1993	3604	3620	3513	3284	2976	3261	3260	3613	3518
1994	3682	3725	3656	3316	3054	3089	3248	3654	3600
1995	3738	3736	3544	3369	3015	3126	3380	3744	3612
1996	3717	3821	3790	3321	3099	3139	3279	3468	3658
1997	3818	3941	3793	3371	3095	3160	3374	3551	3726
1998	3757	3933	3880	3455	3231	3208	3509	3559	3744
1999	3901	3969	3983	3535	3344	3268	3569	3595	3835
2000	3910	3987	3849	3623	3380	3268	3700	3666	3821
2001	3992	4035	3944	3638	3427	3342	3709	3897	3878
2002	4167	4033	3982	3732	3461	3416	3680	3857	3951
2003	4235	4317	4003	3623	3625	3480	3694	3849	4021
2004	4161	4404	3999	3783	3685	3631	4054	3918	4066

# Appendix M

Table M-25

Model Year 1975 To 2004 Cars

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	34.0	30.0	32.4	29.2	31.5	31.1	33.4	30.3	32.4
1976	36.5	34.9	34.1	34.4	33.2	32.2	34.8	30.5	35.4
1977	37.1	35.9	34.6	38.3	38.2	34.6	35.4	31.5	36.4
1978	36.2	36.0	36.0	35.9	36.3	34.0	34.6	30.0	35.9
1979	36.2	34.4	36.6	32.7	33.6	35.8	33.7	33.1	35.4
1980	36.9	35.2	35.8	36.2	34.0	38.6	38.7	37.1	36.5
1981	39.8	36.1	38.1	40.0	36.2	43.1	38.9	38.4	38.9
1982	40.9	37.8	41.0	39.5	39.5	42.9	40.0	38.2	40.1
1983	40.5	38.6	41.8	43.6	42.4	39.1	41.6	39.4	40.5
1984	40.9	40.6	40.6	44.7	42.3	38.6	42.5	39.3	41.0
1985	42.3	41.4	41.0	44.8	41.4	40.9	40.8	40.4	41.9
1986	42.8	42.5	41.7	44.8	43.4	40.0	42.2	38.2	42.6
1987	43.3	42.5	40.7	46.7	43.5	39.2	42.4	37.6	42.7
1988	44.3	43.6	42.2	45.5	44.4	40.5	42.9	38.3	43.7
1989	43.7	44.1	43.1	45.2	44.1	41.4	42.9	38.8	43.7
1990	44.4	44.6	43.6	45.1	44.2	41.8	43.0	39.8	44.2
1991	44.1	44.6	43.6	44.7	44.4	43.4	45.0	40.6	44.2
1992	44.1	45.6	43.8	44.6	47.3	43.0	45.7	43.1	44.8
1993	44.6	45.6	44.5	45.4	48.3	41.6	45.3	45.2	45.3
1994	45.1	45.9	44.4	45.6	49.3	43.4	45.5	45.2	45.7
1995	45.6	46.7	45.3	47.6	49.4	44.5	46.1	46.4	46.3
1996	46.4	45.9	45.3	47.2	48.8	44.5	47.4	45.6	46.5
1997	46.4	46.0	45.9	48.2	48.9	45.3	46.4	44.8	46.6
1998	46.4	45.9	46.1	50.3	50.9	46.8	49.6	44.5	47.3
1999	46.7	46.3	47.3	50.3	50.0	46.4	49.5	44.5	47.5
2000	47.4	46.6	46.6	49.9	49.8	47.3	47.3	44.4	47.6
2001	48.4	46.6	47.1	51.5	51.9	47.5	46.8	45.2	48.3
2002	48.5	47.0	47.2	52.1	51.8	50.1	49.1	46.9	48.9
2003	49.6	48.7	48.1	52.3	54.4	51.2	48.2	47.4	50.1
2004	49.7	47.4	48.6	54.1	54.7	50.1	49.3	46.4	50.1

# Appendix M

Table M-26

Model Year 1975 To 2004 Wagons

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	33.6	30.6	33.9	30.8	0.0	34.1	31.5	32.0	32.2
1976	36.6	36.4	36.2	33.4	33.1	34.9	37.0	32.3	36.2
1977	38.1	35.1	35.0	37.2	36.1	36.4	36.2	34.2	36.3
1978	36.7	35.2	36.6	34.9	35.6	32.4	34.6	29.9	35.8
1979	36.5	35.2	36.5	32.9	33.7	31.3	34.3	39.3	35.8
1980	39.5	36.7	37.5	35.9	36.9	50.5	39.0	52.4	38.4
1981	42.0	37.4	37.3	37.7	38.0	50.7	39.5	40.4	39.1
1982	41.3	39.2	40.5	37.5	41.6	41.8	40.6	46.3	40.4
1983	41.5	40.2	40.5	43.5	41.5	45.2	42.7	42.2	41.6
1984	42.3	42.0	40.0	43.8	40.7	40.4	43.4	41.0	42.1
1985	43.2	42.4	41.3	44.2	40.5	39.9	39.9	39.6	42.7
1986	44.1	43.5	42.0	42.2	41.1	37.1	41.6	40.1	43.4
1987	44.6	43.7	42.1	47.3	41.0	38.4	41.9	42.5	44.1
1988	46.4	43.8	43.0	46.1	44.6	39.6	41.8	40.8	44.6
1989	46.2	43.5	43.0	45.1	44.2	40.4	44.7	40.6	44.6
1990	46.1	43.7	42.9	45.0	47.0	44.7	45.1	39.1	45.0
1991	46.7	46.3	42.4	45.4	46.6	45.5	0.0	40.1	46.3
1992	46.9	46.8	42.5	44.5	47.5	44.7	0.0	45.7	46.7
1993	46.2	47.2	45.2	46.3	48.3	43.1	0.0	48.4	46.8
1994	46.5	47.8	46.7	47.2	50.8	44.7	0.0	47.0	47.5
1995	46.6	47.2	47.8	49.6	50.9	43.9	0.0	48.8	47.3
1996	46.8	48.4	45.3	49.3	50.0	55.0	0.0	0.0	47.9
1997	46.6	48.2	45.6	0.0	47.8	47.0	0.0	0.0	47.5
1998	46.9	47.7	50.0	0.0	0.0	48.5	0.0	0.0	47.4
1999	47.1	48.6	47.8	0.0	0.0	48.9	0.0	47.4	47.9
2000	48.1	49.3	45.5	0.0	0.0	45.4	0.0	46.1	48.0
2001	52.3	48.9	47.5	0.0	0.0	47.2	0.0	47.9	49.0
2002	51.2	49.9	44.8	0.0	0.0	52.1	0.0	49.3	48.4
2003	49.2	49.7	45.3	52.9	0.0	52.8	0.0	50.0	49.3
2004	51.6	49.8	49.6	52.8	0.0	53.2	0.0	49.1	51.0

# Appendix M

Table M-27

Model Year 1975 To 2004 Cars and Wagons

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	34.0	30.1	32.5	30.0	31.5	31.5	33.3	30.4	32.3
1976	36.5	35.1	34.5	34.3	33.2	32.3	35.1	30.7	35.5
1977	37.2	35.8	34.7	38.2	37.9	34.7	35.5	31.7	36.4
1978	36.2	35.9	36.1	35.8	36.3	33.9	34.6	30.0	35.9
1979	36.2	34.5	36.5	32.7	33.6	35.8	33.8	33.4	35.4
1980	37.0	35.4	35.9	36.2	34.2	39.2	38.7	37.1	36.6
1981	39.9	36.4	38.0	39.8	36.3	43.4	38.9	38.6	38.9
1982	41.0	38.0	41.0	39.3	39.7	42.9	40.1	38.3	40.1
1983	40.6	38.8	41.6	43.6	42.3	39.2	41.7	39.5	40.7
1984	41.0	40.7	40.5	44.6	42.2	38.6	42.6	39.4	41.1
1985	42.4	41.5	41.1	44.6	41.4	40.9	40.7	40.3	42.0
1986	42.9	42.6	41.7	44.7	43.3	39.9	42.1	38.3	42.6
1987	43.4	42.7	40.8	46.7	43.4	39.2	42.4	37.7	42.8
1988	44.4	43.6	42.2	45.6	44.4	40.4	42.8	38.3	43.7
1989	43.8	44.0	43.1	45.2	44.1	41.4	42.9	38.8	43.8
1990	44.4	44.5	43.6	45.1	44.2	41.9	43.0	39.8	44.2
1991	44.1	44.7	43.6	44.7	44.5	43.5	45.0	40.6	44.3
1992	44.2	45.7	43.8	44.6	47.3	43.0	45.7	43.2	44.9
1993	44.7	45.8	44.5	45.5	48.3	41.7	45.3	45.2	45.4
1994	45.1	46.1	44.5	45.6	49.3	43.5	45.5	45.3	45.7
1995	45.7	46.7	45.3	47.7	49.5	44.5	46.1	46.4	46.4
1996	46.5	46.1	45.3	47.3	48.8	44.9	47.4	45.6	46.5
1997	46.4	46.2	45.9	48.2	48.8	45.4	46.4	44.8	46.7
1998	46.4	46.1	46.2	50.3	50.9	46.8	49.6	44.5	47.3
1999	46.7	46.4	47.3	50.3	50.0	46.5	49.5	44.6	47.5
2000	47.4	46.8	46.6	49.9	49.8	47.1	47.3	44.5	47.6
2001	48.6	46.8	47.2	51.5	51.9	47.4	46.8	45.3	48.4
2002	48.7	47.1	47.0	52.1	51.8	50.3	49.1	46.9	48.9
2003	49.6	48.8	47.9	52.3	54.4	51.3	48.2	47.5	50.0
2004	49.8	47.5	48.7	54.0	54.7	50.4	49.3	46.4	50.2



# Appendix M

Table M-28

Model Year 1975 To 2004 Vans

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	30.9	26.4	27.4	35.9	0.0	36.2	0.0	0.0	28.1
1976	30.6	28.0	30.8	0.0	0.0	34.9	0.0	0.0	29.7
1977	32.4	32.2	30.5	0.0	0.0	38.9	0.0	0.0	31.7
1978	31.1	31.2	29.7	0.0	0.0	35.0	0.0	0.0	30.8
1979	33.9	28.6	31.0	0.0	0.0	32.9	0.0	0.0	31.3
1980	36.4	37.9	34.6	0.0	0.0	34.4	0.0	0.0	36.4
1981	39.5	38.3	35.6	0.0	0.0	33.8	0.0	0.0	38.0
1982	39.8	37.1	35.9	0.0	0.0	42.1	0.0	0.0	38.0
1983	43.4	37.1	37.3	0.0	0.0	35.3	0.0	40.5	39.7
1984	41.3	36.8	38.4	45.9	0.0	37.5	0.0	42.2	39.3
1985	40.5	36.4	38.9	43.6	0.0	39.0	0.0	43.1	39.3
1986	41.4	41.8	40.8	45.2	0.0	36.2	0.0	57.1	41.5
1987	42.0	42.0	41.7	41.8	0.0	36.2	39.1	0.0	41.7
1988	42.8	42.5	43.8	45.4	0.0	38.6	40.3	0.0	43.2
1989	42.9	42.8	43.7	45.9	0.0	42.2	41.4	0.0	43.2
1990	44.3	41.8	44.8	0.0	0.0	41.9	43.9	0.0	43.8
1991	44.9	42.3	45.6	45.7	0.0	42.1	44.0	0.0	44.5
1992	45.1	43.6	45.4	44.6	0.0	0.0	44.8	0.0	44.8
1993	45.3	44.6	45.3	43.8	0.0	43.7	43.5	0.0	45.0
1994	45.5	44.2	45.0	44.3	0.0	42.8	45.4	0.0	44.9
1995	44.9	45.3	44.5	46.3	44.7	48.9	46.0	0.0	45.0
1996	47.5	45.2	47.6	45.5	49.8	0.0	45.8	0.0	46.8
1997	47.7	45.5	47.3	46.0	43.6	50.8	45.2	0.0	46.9
1998	47.6	46.8	48.4	48.4	47.2	0.0	45.4	0.0	47.7
1999	47.7	48.1	48.0	48.2	54.2	46.7	46.1	0.0	48.1
2000	48.0	48.8	48.9	48.2	53.8	48.5	45.7	0.0	48.9
2001	49.3	50.0	52.0	49.5	54.0	50.0	45.1	0.0	50.8
2002	48.6	49.8	52.2	49.5	54.5	48.3	45.1	0.0	50.9
2003	50.9	50.6	52.7	49.5	54.5	51.4	0.0	0.0	51.8
2004	50.7	49.2	53.3	57.7	54.5	0.0	55.5	0.0	52.8

# Appendix M

Table M-29

Model Year 1975 To 2004 SUVs

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	29.0	24.8	30.4	24.0	0.0	0.0	0.0	0.0	27.1
1976	32.2	27.0	32.1	22.3	0.0	0.0	0.0	0.0	29.6
1977	34.7	29.5	33.7	28.3	0.0	0.0	0.0	0.0	31.8
1978	33.2	29.1	32.7	26.4	0.0	0.0	0.0	0.0	30.6
1979	29.2	27.4	29.3	27.8	0.0	0.0	0.0	29.2	28.3
1980	36.2	30.8	31.8	27.6	0.0	0.0	0.0	39.9	32.9
1981	40.4	33.6	33.9	30.3	0.0	0.0	0.0	0.0	35.4
1982	50.1	33.3	35.2	30.9	0.0	0.0	0.0	0.0	39.2
1983	45.2	33.3	35.1	31.6	0.0	0.0	0.0	0.0	40.1
1984	43.7	35.6	31.8	35.1	0.0	0.0	0.0	0.0	39.1
1985	43.2	36.8	34.4	41.2	0.0	0.0	0.0	0.0	40.3
1986	41.0	38.1	35.6	47.8	0.0	0.0	0.0	35.1	39.9
1987	41.1	38.5	36.4	43.4	0.0	0.0	37.4	0.0	39.7
1988	41.8	39.4	35.4	41.4	0.0	0.0	37.1	0.0	39.5
1989	42.9	41.7	35.4	41.1	0.0	0.0	37.9	0.0	40.3
1990	42.6	41.3	35.8	41.8	0.0	0.0	39.0	41.0	40.0
1991	42.4	43.9	35.3	41.8	0.0	0.0	39.0	36.8	41.4
1992	41.2	43.7	35.0	38.7	0.0	0.0	39.2	34.2	40.6
1993	44.0	44.1	36.8	39.1	0.0	0.0	41.8	34.1	41.3
1994	44.5	43.8	36.1	39.0	0.0	0.0	40.4	0.0	41.6
1995	44.9	44.2	36.1	40.8	0.0	0.0	40.0	0.0	41.7
1996	46.3	44.3	37.0	42.5	42.1	0.0	39.7	0.0	42.9
1997	46.9	44.2	38.7	41.7	45.8	0.0	43.1	0.0	43.5
1998	46.0	44.4	40.1	44.4	46.1	0.0	42.9	0.0	43.7
1999	45.5	44.9	41.8	46.6	46.5	0.0	42.4	0.0	44.3
2000	47.1	45.1	41.7	46.6	47.1	0.0	42.0	43.6	44.7
2001	47.6	44.2	42.7	47.3	48.1	0.0	42.7	46.1	45.5
2002	49.4	44.2	43.5	47.6	49.6	0.0	42.7	50.4	46.5
2003	50.1	46.9	45.3	48.1	50.2	0.0	46.5	49.8	47.9
2004	50.4	47.3	45.7	50.3	49.8	52.9	47.2	49.1	48.7

# Appendix M

Table M-30

Model Year 1975 To 2004 Pickups

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	29.6	27.0	28.3	29.3	0.0	0.0	32.5	0.0	28.8
1976	31.1	30.2	30.7	31.1	0.0	0.0	33.8	0.0	30.9
1977	32.5	34.6	31.5	37.8	0.0	0.0	34.4	0.0	33.4
1978	32.0	34.6	30.8	35.3	0.0	0.0	35.7	0.0	33.1
1979	35.0	31.6	31.2	27.5	0.0	0.0	32.4	0.0	32.9
1980	38.7	37.0	34.4	30.9	0.0	37.6	35.8	43.3	36.7
1981	40.3	38.3	35.9	38.7	0.0	43.6	40.9	0.0	39.3
1982	42.2	37.5	37.6	39.0	0.0	46.2	40.9	0.0	40.1
1983	42.2	37.9	40.2	38.8	0.0	42.6	42.0	0.0	40.0
1984	41.2	38.5	36.6	38.3	0.0	0.0	41.7	31.1	39.4
1985	40.4	38.2	36.5	42.2	0.0	0.0	40.3	0.0	39.6
1986	40.7	39.9	37.1	41.6	0.0	0.0	39.9	0.0	40.1
1987	40.2	40.0	38.8	41.6	0.0	0.0	39.9	40.5	40.1
1988	41.2	40.4	38.8	40.1	0.0	0.0	40.1	41.7	40.5
1989	41.0	41.2	37.5	40.0	0.0	0.0	40.2	34.8	40.5
1990	41.0	41.8	38.5	39.6	0.0	0.0	43.1	38.2	41.1
1991	41.2	42.1	38.2	40.8	0.0	0.0	43.1	35.7	41.4
1992	41.6	43.2	38.9	40.3	0.0	0.0	43.3	0.0	41.8
1993	42.2	43.6	39.0	40.8	0.0	0.0	43.2	0.0	42.4
1994	42.9	44.1	40.6	41.4	0.0	0.0	42.7	0.0	43.0
1995	43.6	44.3	40.5	41.2	0.0	0.0	42.0	0.0	43.1
1996	46.2	44.0	40.8	41.3	0.0	0.0	42.2	0.0	43.9
1997	47.2	45.7	42.2	41.7	0.0	0.0	41.7	0.0	45.3
1998	45.9	44.6	43.1	40.8	0.0	0.0	46.1	0.0	44.6
1999	47.1	43.6	42.5	41.2	0.0	0.0	44.3	0.0	44.7
2000	45.9	44.1	43.0	42.5	0.0	0.0	43.1	0.0	44.4
2001	46.7	45.0	42.6	42.9	0.0	0.0	43.5	0.0	44.8
2002	47.5	45.2	44.9	43.3	0.0	0.0	43.6	0.0	45.6
2003	46.8	45.8	47.4	43.6	0.0	0.0	44.3	0.0	46.2
2004	50.2	50.4	46.3	44.2	0.0	0.0	47.9	0.0	48.9

# Appendix M

Table M-31

Model Year 1975 To 2004 Trucks

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	29.8	26.6	27.8	28.5	0.0	36.2	32.5	0.0	28.4
1976	31.1	29.4	30.8	29.6	0.0	34.9	33.8	0.0	30.5
1977	32.7	33.5	31.1	36.0	0.0	38.9	34.4	0.0	33.0
1978	31.9	33.1	30.4	33.8	0.0	35.0	35.7	0.0	32.4
1979	34.1	30.5	31.1	27.5	0.0	32.9	32.4	29.2	32.1
1980	38.2	36.1	34.4	30.9	0.0	36.4	35.8	40.3	36.3
1981	40.2	37.7	35.7	38.6	0.0	41.2	40.9	0.0	38.8
1982	42.4	36.8	36.9	38.8	0.0	44.1	40.9	0.0	39.7
1983	42.9	37.2	39.3	38.7	0.0	36.2	42.0	40.5	39.9
1984	41.8	37.6	37.2	39.4	0.0	37.5	41.7	34.8	39.3
1985	41.2	37.6	37.8	42.4	0.0	39.0	40.3	43.1	39.6
1986	40.9	39.9	39.2	42.6	0.0	36.2	39.9	56.6	40.4
1987	40.9	40.1	40.2	41.8	0.0	36.2	39.4	40.5	40.5
1988	41.7	40.7	40.3	40.5	0.0	38.6	39.4	41.7	40.9
1989	41.9	41.8	40.0	40.4	0.0	42.2	39.8	34.8	41.2
1990	42.3	41.7	41.4	40.3	0.0	41.9	42.5	39.6	41.8
1991	42.2	42.7	41.5	42.3	0.0	42.1	42.2	36.7	42.2
1992	42.3	43.4	41.9	40.7	0.0	0.0	42.0	34.2	42.4
1993	43.4	44.0	41.2	40.9	0.0	43.7	42.9	34.1	42.9
1994	43.9	44.0	41.3	40.9	0.0	42.8	42.8	0.0	43.1
1995	44.3	44.7	40.1	41.4	44.7	48.9	42.2	0.0	43.2
1996	46.4	44.4	42.7	41.9	45.5	0.0	42.4	0.0	44.3
1997	47.2	45.2	42.9	41.7	45.4	50.8	42.8	0.0	44.9
1998	46.3	45.0	43.6	43.6	46.2	0.0	44.6	0.0	44.9
1999	46.7	44.8	43.9	45.1	48.6	46.7	43.8	0.0	45.3
2000	46.7	45.4	44.2	45.3	50.3	48.5	42.9	43.6	45.6
2001	47.5	45.4	45.1	46.0	50.6	50.0	43.1	46.1	46.1
2002	48.7	45.2	46.2	46.3	51.7	48.3	43.1	50.4	46.9
2003	49.1	46.9	47.5	46.6	51.5	51.4	46.0	49.8	48.0
2004	50.4	49.0	47.1	49.7	51.2	52.9	48.8	49.1	49.4

# Appendix M

Table M-32

Model Year 1975 To 2004 All

UNADJUSTED TON MPG by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	33.2	29.2	31.7	29.8	31.5	31.5	33.1	30.4	31.6
1976	35.4	33.6	33.8	33.7	33.2	32.4	34.8	30.7	34.4
1977	36.4	35.1	34.1	37.9	37.9	34.7	35.3	31.7	35.7
1978	35.3	35.1	34.8	35.4	36.3	33.9	34.8	30.0	35.1
1979	35.8	33.3	35.2	31.7	33.6	35.7	33.6	32.8	34.7
1980	37.2	35.5	35.6	35.1	34.2	38.9	38.2	37.4	36.6
1981	40.0	36.8	37.7	39.6	36.3	43.1	39.3	38.6	38.9
1982	41.2	37.7	40.1	39.2	39.7	43.0	40.2	38.3	40.0
1983	41.1	38.3	41.1	42.5	42.3	38.9	41.8	39.5	40.5
1984	41.2	39.7	39.6	42.8	42.2	38.5	42.4	39.2	40.7
1985	42.1	40.3	40.0	43.8	41.4	40.7	40.6	40.4	41.4
1986	42.5	41.5	40.9	43.8	43.3	39.8	41.1	38.5	42.0
1987	42.8	41.6	40.6	45.0	43.4	39.0	41.7	37.7	42.1
1988	43.6	42.7	41.5	44.0	44.4	40.4	41.9	38.3	42.9
1989	43.2	43.3	41.8	43.9	44.1	41.4	42.2	38.7	43.0
1990	43.8	43.5	42.6	44.0	44.2	41.9	42.9	39.8	43.5
1991	43.5	44.0	42.8	44.0	44.5	43.4	44.2	39.3	43.6
1992	43.6	44.8	42.9	43.6	47.3	43.0	44.8	41.3	44.1
1993	44.2	45.1	42.8	44.2	48.3	42.0	44.5	42.3	44.5
1994	44.6	45.2	42.7	44.1	49.3	43.5	44.7	45.3	44.7
1995	45.1	45.9	42.8	46.0	49.3	44.6	44.6	46.4	45.2
1996	46.4	45.3	43.8	45.7	48.6	44.9	46.0	45.6	45.6
1997	46.7	45.7	44.3	46.2	48.4	45.4	45.2	44.8	45.9
1998	46.3	45.5	44.6	47.9	50.3	46.8	48.0	44.5	46.3
1999	46.7	45.6	45.2	48.4	49.7	46.5	47.8	44.6	46.5
2000	47.1	46.1	45.3	48.0	49.9	47.2	45.4	44.5	46.7
2001	48.1	46.0	46.1	49.0	51.5	47.5	45.1	45.4	47.3
2002	48.7	46.0	46.6	49.4	51.8	50.2	46.7	47.5	47.9
2003	49.3	47.6	47.7	50.0	53.3	51.3	47.4	47.8	49.0
2004	50.1	48.4	48.0	52.0	53.3	50.6	49.1	47.1	49.8

# Appendix M

Table M-33

## Model Year 1975 to 2004 Cars

### Laboratory 55/45 TON MPG Index by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	1.05	0.93	1.00	0.90	0.97	0.96	1.03	0.94	1.00
1976	1.03	0.99	0.96	0.97	0.94	0.91	0.98	0.86	1.00
1977	1.02	0.99	0.95	1.05	1.05	0.95	0.97	0.86	1.00
1978	1.01	1.00	1.00	1.00	1.01	0.95	0.96	0.83	1.00
1979	1.02	0.97	1.03	0.92	0.95	1.01	0.95	0.94	1.00
1980	1.01	0.96	0.98	0.99	0.93	1.06	1.06	1.02	1.00
1981	1.02	0.93	0.98	1.03	0.93	1.11	1.00	0.99	1.00
1982	1.02	0.94	1.02	0.99	0.99	1.07	1.00	0.95	1.00
1983	1.00	0.95	1.03	1.08	1.04	0.96	1.03	0.97	1.00
1984	1.00	0.99	0.99	1.09	1.03	0.94	1.04	0.96	1.00
1985	1.01	0.99	0.98	1.07	0.99	0.98	0.97	0.96	1.00
1986	1.01	1.00	0.98	1.05	1.02	0.94	0.99	0.90	1.00
1987	1.02	1.00	0.96	1.09	1.02	0.92	0.99	0.88	1.00
1988	1.01	1.00	0.97	1.04	1.02	0.93	0.98	0.88	1.00
1989	1.00	1.01	0.99	1.03	1.01	0.95	0.98	0.89	1.00
1990	1.00	1.01	0.99	1.02	1.00	0.95	0.97	0.90	1.00
1991	1.00	1.01	0.99	1.01	1.01	0.98	1.02	0.92	1.00
1992	0.98	1.02	0.98	1.00	1.05	0.96	1.02	0.96	1.00
1993	0.99	1.01	0.98	1.00	1.07	0.92	1.00	1.00	1.00
1994	0.99	1.01	0.97	1.00	1.08	0.95	1.00	0.99	1.00
1995	0.99	1.01	0.98	1.03	1.07	0.96	1.00	1.00	1.00
1996	1.00	0.99	0.98	1.02	1.05	0.96	1.02	0.98	1.00
1997	1.00	0.99	0.98	1.03	1.05	0.97	1.00	0.96	1.00
1998	0.98	0.97	0.97	1.06	1.08	0.99	1.05	0.94	1.00
1999	0.98	0.97	1.00	1.06	1.05	0.98	1.04	0.94	1.00
2000	1.00	0.98	0.98	1.05	1.05	0.99	0.99	0.93	1.00
2001	1.00	0.96	0.97	1.06	1.07	0.98	0.97	0.93	1.00
2002	0.99	0.96	0.97	1.07	1.06	1.02	1.00	0.96	1.00
2003	0.99	0.97	0.96	1.04	1.09	1.02	0.96	0.95	1.00
2004	0.99	0.95	0.97	1.08	1.09	1.00	0.99	0.93	1.00

# Appendix M

Table M-34

## Model Year 1975 to 2004 Wagons

### Laboratory 55/45 TON MPG Index by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	1.04	0.95	1.05	0.96	0.00	1.06	0.98	0.99	1.00
1976	1.01	1.01	1.00	0.92	0.92	0.96	1.02	0.89	1.00
1977	1.05	0.97	0.96	1.02	0.99	1.00	1.00	0.94	1.00
1978	1.02	0.98	1.02	0.97	0.99	0.90	0.97	0.83	1.00
1979	1.02	0.98	1.02	0.92	0.94	0.87	0.96	1.10	1.00
1980	1.03	0.95	0.98	0.93	0.96	1.32	1.02	1.36	1.00
1981	1.07	0.96	0.95	0.96	0.97	1.30	1.01	1.04	1.00
1982	1.02	0.97	1.00	0.93	1.03	1.04	1.00	1.15	1.00
1983	1.00	0.97	0.97	1.05	1.00	1.09	1.03	1.02	1.00
1984	1.01	1.00	0.95	1.04	0.97	0.96	1.03	0.97	1.00
1985	1.01	0.99	0.97	1.03	0.95	0.93	0.93	0.93	1.00
1986	1.02	1.00	0.97	0.97	0.95	0.86	0.96	0.93	1.00
1987	1.01	0.99	0.95	1.07	0.93	0.87	0.95	0.96	1.00
1988	1.04	0.98	0.96	1.03	1.00	0.89	0.94	0.91	1.00
1989	1.04	0.97	0.96	1.01	0.99	0.90	1.00	0.91	1.00
1990	1.02	0.97	0.95	1.00	1.04	0.99	1.00	0.87	1.00
1991	1.01	1.00	0.92	0.98	1.01	0.98	0.00	0.87	1.00
1992	1.01	1.00	0.91	0.95	1.02	0.96	0.00	0.98	1.00
1993	0.99	1.01	0.97	0.99	1.03	0.92	0.00	1.03	1.00
1994	0.98	1.01	0.98	0.99	1.07	0.94	0.00	0.99	1.00
1995	0.99	1.00	1.01	1.05	1.08	0.93	0.00	1.03	1.00
1996	0.98	1.01	0.95	1.03	1.04	1.15	0.00	0.00	1.00
1997	0.98	1.02	0.96	0.00	1.01	0.99	0.00	0.00	1.00
1998	0.99	1.01	1.06	0.00	0.00	1.02	0.00	0.00	1.00
1999	0.98	1.02	1.00	0.00	0.00	1.02	0.00	0.99	1.00
2000	1.00	1.03	0.95	0.00	0.00	0.95	0.00	0.96	1.00
2001	1.07	1.00	0.97	0.00	0.00	0.96	0.00	0.98	1.00
2002	1.06	1.03	0.93	0.00	0.00	1.08	0.00	1.02	1.00
2003	1.00	1.01	0.92	1.07	0.00	1.07	0.00	1.02	1.00
2004	1.01	0.98	0.97	1.04	0.00	1.04	0.00	0.96	1.00

# Appendix M

Table M-35

## Model Year 1975 to 2004 Cars and Wagons

### Laboratory 55/45 TON MPG Index by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	1.05	0.93	1.01	0.93	0.97	0.97	1.03	0.94	1.00
1976	1.03	0.99	0.97	0.97	0.93	0.91	0.99	0.86	1.00
1977	1.02	0.98	0.95	1.05	1.04	0.95	0.98	0.87	1.00
1978	1.01	1.00	1.01	1.00	1.01	0.94	0.96	0.83	1.00
1979	1.02	0.97	1.03	0.92	0.95	1.01	0.95	0.94	1.00
1980	1.01	0.97	0.98	0.99	0.93	1.07	1.06	1.01	1.00
1981	1.03	0.94	0.98	1.02	0.93	1.11	1.00	0.99	1.00
1982	1.02	0.95	1.02	0.98	0.99	1.07	1.00	0.96	1.00
1983	1.00	0.95	1.02	1.07	1.04	0.96	1.03	0.97	1.00
1984	1.00	0.99	0.99	1.08	1.03	0.94	1.04	0.96	1.00
1985	1.01	0.99	0.98	1.06	0.99	0.97	0.97	0.96	1.00
1986	1.01	1.00	0.98	1.05	1.02	0.94	0.99	0.90	1.00
1987	1.02	1.00	0.95	1.09	1.02	0.92	0.99	0.88	1.00
1988	1.02	1.00	0.97	1.04	1.02	0.92	0.98	0.88	1.00
1989	1.00	1.01	0.98	1.03	1.01	0.95	0.98	0.89	1.00
1990	1.00	1.01	0.99	1.02	1.00	0.95	0.97	0.90	1.00
1991	1.00	1.01	0.98	1.01	1.01	0.98	1.02	0.92	1.00
1992	0.99	1.02	0.98	0.99	1.05	0.96	1.02	0.96	1.00
1993	0.98	1.01	0.98	1.00	1.07	0.92	1.00	1.00	1.00
1994	0.99	1.01	0.97	1.00	1.08	0.95	1.00	0.99	1.00
1995	0.98	1.01	0.98	1.03	1.07	0.96	1.00	1.00	1.00
1996	1.00	0.99	0.97	1.02	1.05	0.96	1.02	0.98	1.00
1997	1.00	0.99	0.98	1.03	1.05	0.97	0.99	0.96	1.00
1998	0.98	0.97	0.98	1.06	1.08	0.99	1.05	0.94	1.00
1999	0.98	0.98	0.99	1.06	1.05	0.98	1.04	0.94	1.00
2000	1.00	0.98	0.98	1.05	1.05	0.99	0.99	0.94	1.00
2001	1.00	0.97	0.97	1.06	1.07	0.98	0.97	0.94	1.00
2002	1.00	0.96	0.96	1.07	1.06	1.03	1.00	0.96	1.00
2003	0.99	0.98	0.96	1.05	1.09	1.03	0.96	0.95	1.00
2004	0.99	0.95	0.97	1.08	1.09	1.00	0.98	0.93	1.00



# Appendix M

Table M-36

## Model Year 1975 to 2004 Vans

### Laboratory 55/45 TON MPG Index by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	1.10	0.94	0.98	1.28	0.00	1.29	0.00	0.00	1.00
1976	1.03	0.94	1.04	0.00	0.00	1.18	0.00	0.00	1.00
1977	1.02	1.02	0.96	0.00	0.00	1.23	0.00	0.00	1.00
1978	1.01	1.01	0.97	0.00	0.00	1.14	0.00	0.00	1.00
1979	1.08	0.91	0.99	0.00	0.00	1.05	0.00	0.00	1.00
1980	1.00	1.04	0.95	0.00	0.00	0.95	0.00	0.00	1.00
1981	1.04	1.01	0.94	0.00	0.00	0.89	0.00	0.00	1.00
1982	1.05	0.98	0.95	0.00	0.00	1.11	0.00	0.00	1.00
1983	1.09	0.93	0.94	0.00	0.00	0.89	0.00	1.02	1.00
1984	1.05	0.94	0.98	1.17	0.00	0.96	0.00	1.07	1.00
1985	1.03	0.93	0.99	1.11	0.00	0.99	0.00	1.10	1.00
1986	1.00	1.01	0.98	1.09	0.00	0.87	0.00	1.38	1.00
1987	1.01	1.01	1.00	1.00	0.00	0.87	0.94	0.00	1.00
1988	0.99	0.99	1.02	1.05	0.00	0.89	0.93	0.00	1.00
1989	0.99	0.99	1.01	1.06	0.00	0.98	0.96	0.00	1.00
1990	1.01	0.95	1.02	0.00	0.00	0.95	1.00	0.00	1.00
1991	1.01	0.95	1.02	1.03	0.00	0.95	0.99	0.00	1.00
1992	1.01	0.97	1.01	0.99	0.00	0.00	1.00	0.00	1.00
1993	1.01	0.99	1.01	0.97	0.00	0.97	0.97	0.00	1.00
1994	1.01	0.98	1.00	0.99	0.00	0.95	1.01	0.00	1.00
1995	1.00	1.01	0.99	1.03	0.99	1.09	1.02	0.00	1.00
1996	1.01	0.97	1.02	0.97	1.06	0.00	0.98	0.00	1.00
1997	1.02	0.97	1.01	0.98	0.93	1.08	0.96	0.00	1.00
1998	1.00	0.98	1.02	1.02	0.99	0.00	0.95	0.00	1.00
1999	0.99	1.00	1.00	1.00	1.13	0.97	0.96	0.00	1.00
2000	0.98	1.00	1.00	0.99	1.10	0.99	0.93	0.00	1.00
2001	0.97	0.98	1.02	0.97	1.06	0.98	0.89	0.00	1.00
2002	0.95	0.98	1.02	0.97	1.07	0.95	0.89	0.00	1.00
2003	0.98	0.98	1.02	0.95	1.05	0.99	0.00	0.00	1.00
2004	0.96	0.93	1.01	1.09	1.03	0.00	1.05	0.00	1.00

# Appendix M

Table M-37

## Model Year 1975 To 2004 Cars Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	341	291	302	129	83	96	117	111	293
1976	327	290	294	116	83	100	112	119	288
1977	311	307	300	108	88	99	111	117	281
1978	286	270	250	112	90	98	110	115	252
1979	281	239	220	113	98	98	112	123	239
1980	220	197	173	115	100	100	106	117	188
1981	222	185	150	114	100	106	114	125	184
1982	207	175	162	118	101	109	118	122	175
1983	219	188	160	124	102	118	118	129	185
1984	208	184	154	118	105	119	125	140	180
1985	205	185	158	122	105	114	128	161	179
1986	187	181	148	116	108	115	129	149	168
1987	188	179	147	115	110	114	125	144	162
1988	177	183	142	111	115	112	117	144	160
1989	184	180	145	115	113	112	124	158	162
1990	181	185	149	122	120	117	144	167	163
1991	185	175	150	121	123	115	143	163	163
1992	190	192	153	129	125	121	137	154	170
1993	186	181	159	132	119	140	138	164	167
1994	184	191	164	131	121	130	135	166	168
1995	189	185	150	135	117	133	148	171	168
1996	184	188	151	134	124	133	145	169	166
1997	182	187	152	137	122	132	146	183	164
1998	190	177	142	143	128	131	146	184	165
1999	187	179	155	142	135	131	148	179	166
2000	188	184	150	141	134	131	158	181	166
2001	189	185	152	141	134	131	150	186	165
2002	192	179	151	154	136	127	165	178	166
2003	210	198	154	143	141	129	178	174	173
2004	189	203	161	145	143	131	177	176	172

# Appendix M

Table M-38

## Model Year 1975 To 2004 Wagons Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	313	282	301	113	0	89	119	107	256
1976	324	293	280	114	91	97	109	98	276
1977	307	292	282	109	91	96	110	103	266
1978	278	256	270	114	91	97	115	109	243
1979	272	223	260	107	91	97	96	129	234
1980	240	195	233	114	91	90	98	141	189
1981	230	150	157	116	91	97	105	110	165
1982	219	166	145	115	91	105	105	129	178
1983	207	169	145	97	91	108	107	112	161
1984	182	179	141	95	91	125	106	128	166
1985	182	176	142	98	91	121	123	125	158
1986	178	169	145	98	91	136	120	128	162
1987	180	167	148	116	91	124	128	124	162
1988	181	172	141	113	93	111	122	132	163
1989	189	181	114	115	92	116	98	132	171
1990	172	182	141	115	92	118	98	117	165
1991	184	160	181	111	119	123	0	131	158
1992	190	170	181	122	132	129	0	150	171
1993	172	144	150	130	132	170	0	152	150
1994	178	146	159	130	132	169	0	170	154
1995	161	141	165	131	132	166	0	154	147
1996	161	155	110	131	132	156	0	0	155
1997	138	147	109	0	132	168	0	0	142
1998	136	148	158	0	0	150	0	0	143
1999	139	159	154	0	0	131	0	189	148
2000	146	148	136	0	0	154	0	169	147
2001	155	146	149	0	0	150	0	159	150
2002	151	146	150	0	0	138	0	160	149
2003	149	162	149	110	0	135	0	160	144
2004	135	153	170	106	0	136	0	152	145

# Appendix M

Table M-39

## Model Year 1975 To 2004 Cars and Wagons

### Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	339	290	302	121	83	95	117	110	288
1976	327	291	291	115	84	100	112	117	287
1977	311	305	296	108	88	99	111	116	279
1978	285	269	253	113	90	98	111	114	251
1979	280	238	224	113	97	98	109	123	238
1980	221	196	177	115	100	99	105	117	188
1981	222	179	151	114	100	106	113	124	182
1982	208	174	160	118	100	109	117	122	175
1983	218	186	159	115	101	118	116	128	182
1984	205	183	153	116	104	119	123	139	179
1985	203	184	157	116	104	115	128	159	177
1986	186	179	148	115	107	115	128	149	167
1987	187	178	147	115	109	114	125	144	162
1988	177	182	142	111	115	112	118	144	160
1989	184	180	144	115	112	112	124	158	163
1990	180	185	149	122	119	117	144	167	163
1991	185	173	151	120	122	115	143	162	163
1992	190	190	153	129	125	121	137	154	170
1993	185	176	159	132	119	142	138	164	166
1994	184	186	164	131	121	131	135	166	168
1995	188	180	150	135	117	134	148	171	167
1996	183	186	150	134	124	134	145	169	165
1997	180	184	151	137	122	133	146	183	164
1998	188	175	142	143	128	132	146	184	164
1999	185	178	155	142	135	131	148	180	166
2000	186	182	150	141	134	132	158	180	165
2001	187	183	152	141	134	133	150	186	165
2002	190	177	151	154	136	128	165	177	166
2003	208	194	153	140	141	129	178	173	171
2004	185	200	163	142	143	131	177	176	170

# Appendix M

Table M-40

## Model Year 1975 To 2004 Vans Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	306	334	313	133	0	109	0	0	318
1976	321	336	314	0	0	120	0	0	324
1977	325	343	327	0	0	120	0	0	332
1978	328	335	327	0	0	120	0	0	329
1979	319	336	321	0	0	120	0	0	322
1980	297	314	278	0	0	120	0	0	288
1981	285	310	271	0	0	120	0	0	284
1982	291	314	276	0	0	111	0	0	287
1983	306	313	270	0	0	119	0	219	294
1984	301	313	201	122	0	117	0	151	249
1985	286	311	188	122	0	117	0	249	236
1986	279	242	186	137	0	129	0	149	228
1987	284	236	192	137	0	129	146	0	226
1988	286	240	188	137	0	129	146	0	229
1989	290	225	187	137	0	129	146	0	225
1990	258	230	200	0	0	129	146	0	225
1991	262	226	199	149	0	129	146	0	220
1992	266	230	195	149	0	0	146	0	222
1993	269	218	193	148	0	150	181	0	218
1994	265	232	206	149	0	150	181	0	226
1995	269	237	201	149	132	150	181	0	231
1996	257	233	208	149	132	0	181	0	220
1997	248	227	208	149	132	170	181	0	220
1998	240	226	203	183	138	0	181	0	217
1999	243	238	208	183	212	170	200	0	223
2000	241	225	204	183	212	170	200	0	217
2001	234	225	213	183	212	170	200	0	218
2002	235	232	210	183	212	170	200	0	218
2003	255	235	215	183	212	170	0	0	231
2004	237	246	210	202	212	0	213	0	223

# Appendix M

Table M-41

## Model Year 1975 To 2004 SUVs Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	350	305	357	257	0	0	0	0	328
1976	359	312	362	258	0	0	0	0	335
1977	357	313	363	258	0	0	0	0	332
1978	355	331	366	258	0	0	0	0	339
1979	369	305	325	258	0	0	0	300	331
1980	325	282	329	258	0	0	0	255	295
1981	311	281	321	258	0	0	0	0	290
1982	315	280	318	258	0	0	0	0	294
1983	233	282	291	258	0	0	0	0	254
1984	223	221	322	194	0	0	0	0	227
1985	212	211	312	170	0	0	0	0	216
1986	202	212	296	151	0	0	0	96	207
1987	197	229	227	157	0	0	175	0	209
1988	211	217	248	175	0	0	181	0	219
1989	250	235	243	180	0	0	181	0	242
1990	245	250	239	178	0	0	181	97	232
1991	239	237	230	190	0	0	181	145	230
1992	237	238	228	179	0	0	181	164	229
1993	254	240	248	195	0	0	181	161	242
1994	244	239	249	196	0	0	181	0	239
1995	255	254	236	187	0	0	181	0	241
1996	265	260	252	185	191	0	200	0	252
1997	278	277	233	178	137	0	200	0	246
1998	250	278	251	180	136	0	200	0	246
1999	253	277	256	188	135	0	200	0	246
2000	262	277	245	193	131	0	199	268	245
2001	259	247	235	190	149	0	207	212	233
2002	264	241	229	194	163	0	204	203	236
2003	263	262	237	212	175	0	210	220	240
2004	267	252	234	219	175	212	228	221	240

# Appendix M

Table M-42

## Model Year 1975 To 2004 Pickups Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	321	323	336	133	0	0	119	0	306
1976	329	330	333	133	0	0	119	0	316
1977	325	333	340	134	0	0	119	0	313
1978	317	326	322	134	0	0	119	0	306
1979	296	317	269	134	0	0	119	0	287
1980	264	284	199	134	0	94	119	228	236
1981	254	275	213	143	0	99	133	0	237
1982	242	279	212	143	0	99	133	0	228
1983	243	222	180	144	0	103	141	0	212
1984	242	225	218	144	0	0	145	59	215
1985	240	251	236	144	0	0	146	0	221
1986	237	222	216	144	0	0	151	0	206
1987	231	208	213	144	0	0	151	161	202
1988	270	222	213	147	0	0	151	275	229
1989	275	232	224	154	0	0	152	318	236
1990	302	235	239	156	0	0	149	151	247
1991	257	234	245	154	0	0	149	262	232
1992	276	243	247	154	0	0	150	0	245
1993	281	242	257	155	0	0	150	0	244
1994	287	234	285	152	0	0	152	0	247
1995	278	260	291	171	0	0	153	0	257
1996	273	230	305	174	0	0	146	0	251
1997	289	246	309	203	0	0	146	0	264
1998	267	241	299	170	0	0	146	0	252
1999	293	243	307	175	0	0	166	0	267
2000	272	245	292	219	0	0	177	0	255
2001	279	263	306	210	0	0	178	0	268
2002	302	260	290	218	0	0	179	0	271
2003	273	257	296	219	0	0	182	0	262
2004	302	276	297	224	0	0	267	0	281

# Appendix M

Table M-43

## Model Year 1975 To 2004 Trucks Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	321	324	321	153	0	109	119	0	311
1976	331	329	325	155	0	120	119	0	319
1977	328	333	335	158	0	120	119	0	318
1978	322	329	327	154	0	120	119	0	314
1979	308	318	292	139	0	120	119	300	298
1980	273	288	225	136	0	104	119	252	248
1981	262	280	237	144	0	104	133	0	247
1982	254	285	238	145	0	105	133	0	243
1983	253	244	208	147	0	117	141	219	231
1984	247	235	216	143	0	117	145	90	224
1985	241	250	214	143	0	117	146	249	224
1986	238	224	202	144	0	129	151	148	211
1987	234	219	203	145	0	129	154	161	210
1988	258	225	209	150	0	129	158	275	227
1989	271	230	211	156	0	129	156	318	234
1990	277	235	217	163	0	129	154	124	237
1991	253	233	216	159	0	129	156	154	228
1992	264	239	212	157	0	0	160	164	234
1993	271	234	223	161	0	150	161	161	235
1994	270	235	235	163	0	150	165	0	240
1995	268	250	236	175	132	150	167	0	244
1996	268	241	244	178	166	0	170	0	243
1997	277	254	244	180	136	170	172	0	248
1998	256	252	248	177	136	0	173	0	242
1999	271	255	252	183	155	170	191	0	249
2000	263	253	240	201	170	170	191	268	242
2001	263	252	251	196	175	170	198	212	243
2002	273	247	239	201	184	170	196	203	244
2003	265	257	244	213	186	170	203	220	245
2004	275	263	244	218	187	212	239	221	251



# Appendix M

Table M-44

## Model Year 1975 To 2004 All Engine Size (CID) by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	335	298	305	125	83	95	118	110	293
1976	328	301	298	120	84	100	114	117	294
1977	314	313	303	115	88	99	112	116	287
1978	293	287	270	119	90	98	112	114	266
1979	286	261	240	118	97	99	111	146	252
1980	228	220	186	119	100	100	107	128	198
1981	228	209	162	119	100	106	116	124	193
1982	216	203	177	124	100	109	120	122	188
1983	224	205	170	122	101	118	120	129	193
1984	213	201	170	125	104	119	128	136	190
1985	212	203	175	126	104	115	133	160	189
1986	197	196	165	127	107	116	137	149	180
1987	198	194	165	125	109	115	131	144	175
1988	201	196	169	123	115	113	128	144	180
1989	211	196	173	126	112	112	132	160	185
1990	209	202	179	132	119	117	147	161	185
1991	208	196	176	132	122	115	147	159	184
1992	214	210	181	136	125	121	142	156	191
1993	215	199	192	140	119	143	146	163	191
1994	218	208	203	141	121	131	144	166	196
1995	220	210	191	146	118	134	156	171	196
1996	214	211	205	147	126	134	152	169	197
1997	219	220	202	150	124	134	155	183	199
1998	216	217	207	155	129	132	155	184	199
1999	222	218	214	157	139	131	161	180	203
2000	221	218	200	166	142	133	172	183	200
2001	222	221	203	165	145	133	173	191	201
2002	233	218	197	176	149	129	177	181	203
2003	240	233	203	170	159	130	187	181	209
2004	230	237	202	177	161	138	209	187	209

# Appendix M

Table M-45

## Truck Sales Fraction by Marketing Group

YEAR	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1975	0.20	0.24	0.17	0.12		0.00	0.24		0.19
1976	0.21	0.27	0.19	0.13		0.01	0.23		0.21
1977	0.18	0.29	0.17	0.15		0.01	0.21		0.20
1978	0.21	0.30	0.22	0.16		0.01	0.18		0.23
1979	0.20	0.29	0.24	0.20		0.04	0.17	0.12	0.22
1980	0.13	0.26	0.19	0.20		0.09	0.19	0.08	0.17
1981	0.14	0.30	0.13	0.19		0.14	0.18		0.17
1982	0.18	0.26	0.22	0.22		0.12	0.21		0.20
1983	0.19	0.34	0.24	0.22		0.10	0.17	0.01	0.22
1984	0.19	0.33	0.28	0.34		0.07	0.22	0.06	0.24
1985	0.23	0.29	0.31	0.39		0.07	0.27		0.25
1986	0.22	0.39	0.31	0.41		0.04	0.42	0.01	0.28
1987	0.24	0.39	0.32	0.36		0.05	0.22	0.01	0.28
1988	0.30	0.33	0.40	0.30		0.02	0.26		0.30
1989	0.31	0.33	0.43	0.27		0.03	0.23	0.01	0.31
1990	0.29	0.35	0.44	0.24		0.05	0.27	0.15	0.30
1991	0.34	0.38	0.39	0.30		0.04	0.30	0.33	0.32
1992	0.32	0.41	0.48	0.25			0.24	0.21	0.33
1993	0.35	0.39	0.51	0.28		0.16	0.32	0.26	0.36
1994	0.39	0.45	0.55	0.32			0.31		0.40
1995	0.39	0.42	0.47	0.27	0.04	0.01	0.40		0.38
1996	0.37	0.47	0.58	0.29	0.06		0.28		0.40
1997	0.40	0.52	0.55	0.31	0.12	0.01	0.35		0.42
1998	0.42	0.54	0.62	0.36	0.14		0.32		0.45
1999	0.43	0.52	0.61	0.37	0.20	0.01	0.30		0.45
2000	0.45	0.51	0.55	0.42	0.22	0.01	0.44	0.03	0.45
2001	0.46	0.55	0.52	0.45	0.26	0.01	0.48	0.19	0.46
2002	0.52	0.58	0.53	0.47	0.28	0.01	0.39	0.16	0.49
2003	0.57	0.63	0.55	0.41	0.39	0.01	0.36	0.16	0.51
2004	0.49	0.59	0.48	0.47	0.42	0.09	0.51	0.25	0.48

# Appendix M

Table M-46

## Laboratory Fuel Economy Values by Vehicle Type and Size for GM

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	16.8	15.3	13.3	23.3	13.9	12.2		14.4			11.8	12.2	22.3		14.0
1976	18.5	16.8	14.3	24.0	14.8	13.6		14.0	13.9		13.1	12.7	25.0		14.3
1977	18.9	17.5	17.1	27.3	15.4	17.0		15.0			14.9	13.6	25.0		14.8
1978	20.3	20.0	17.5	26.2	19.1	16.4		14.1			14.2	13.2	26.5		14.3
1979	20.9	20.0	17.5	27.0	19.2	16.0		14.7		25.7	11.8	11.0	25.5		14.6
1980	24.2	21.9	19.2	26.7	20.8	19.4		16.7		25.2	14.9	14.0	26.4		17.4
1981	26.1	23.1	21.0	29.7	21.9	20.4		18.0		25.2	16.8	15.3	29.1		18.9
1982	27.0	24.5	21.0	29.6	22.4	19.0		17.9	14.3	25.0	19.5	18.9	32.8	26.2	19.5
1983	27.6	23.8	20.3	29.6	22.2	19.5		18.9	14.7	24.9	21.7	17.6	33.2	25.3	19.0
1984	28.0	24.0	20.7	30.3	23.7	19.9		18.2	13.9	28.8	21.5	16.9	32.1	24.2	18.5
1985	29.2	25.0	22.9	30.2	24.8	21.0		18.8	14.1	28.8	21.6	16.9	31.1	24.9	17.8
1986	29.8	26.1	24.6	29.8	25.7	22.0		19.4	14.7	33.1	20.5	16.8	29.3	24.6	18.2
1987	30.1	26.6	24.5	29.3	25.7	22.3		19.8	17.0	33.1	20.6	17.0	29.8	25.2	18.0
1988	30.5	27.2	25.1	30.0	27.8	22.9		20.2	17.3	33.3	20.9	16.6		25.9	18.2
1989	29.9	27.3	24.6	30.5	27.4	22.4		20.3	18.0	29.6	21.1	16.7		25.1	18.3
1990	30.3	26.6	24.1	27.9	26.7	22.8		20.7	18.1	28.5	20.0	16.7		24.9	18.1
1991	30.2	26.0	23.8	28.2	26.1	22.8		20.8	18.3	28.3	21.1	16.6		25.0	18.5
1992	30.0	25.2	23.7	28.6	26.1	22.7		20.9	18.1	27.9	20.4	15.8		24.3	18.6
1993	30.4	25.7	24.2	29.1	26.4	22.5		20.7	17.9	28.0	21.6	16.4		24.2	18.8
1994	30.1	25.7	24.4	29.2	26.2	22.9		21.0	18.1	26.2	21.0	16.5		25.0	18.5
1995	30.2	25.6	24.7	31.9	27.5	22.8		20.7	17.5	28.5	21.0	16.6		25.7	18.0
1996	30.9	26.3	24.6	31.8	26.9	23.2		22.2	18.3	28.1	21.3	17.4		26.1	19.2
1997	31.0	26.2	25.3	31.9	27.3			22.5	19.0	27.9	21.1	17.6		25.2	19.0
1998	30.7	26.2	24.9	32.7	27.4			22.9	18.2	24.4	21.4	17.5		25.9	18.9
1999	29.6	26.1	24.9	32.1	27.2			23.0	18.1	25.7	20.9	17.9		24.8	18.7
2000	29.9	26.5	25.8	31.7	27.6			23.1	18.0	26.0	21.0	17.6		24.2	19.7
2001	30.4	27.0	26.3	32.2	27.6			24.2	18.1	25.6	21.2	18.0		22.5	19.8
2002	30.5	27.5	26.6	28.2	27.4			23.4	18.2	26.8	21.7	19.4		20.9	18.8
2003	30.5	28.2	27.0	29.6	26.4			24.0	17.9	26.7	24.3	19.0	26.3	23.4	19.0
2004	30.9	28.3	27.4	32.2	27.7			23.9	19.1	25.9	23.6	19.4	26.4	22.1	19.7

# Appendix M

Table M-47

## Laboratory Fuel Economy Values by Vehicle Type and Size for Ford

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	16.8	11.7	12.1	20.2	12.3	11.4			12.6	16.8	12.1		16.8	21.1	12.0
1976	18.9	14.7	14.2	21.8	15.4	13.6			13.4	17.2	13.4		18.2	22.9	13.4
1977	18.8	15.5	13.9	21.2	15.8	13.9		19.3	15.5	18.2	14.4		24.5	29.5	15.2
1978	22.9	17.7	15.3	21.2	19.5	15.0			15.0	17.8	13.7			29.3	15.2
1979	22.1	17.8	16.9	23.3	20.0	16.5			12.1	16.8	11.6			26.3	14.1
1980	23.5	22.1	18.9	25.1	22.7	18.4			16.2	18.8	13.8			26.2	17.0
1981	26.6	21.6	18.8	29.2	21.2	18.5			16.8	20.7	15.3		20.7	27.1	18.4
1982	28.0	21.3	19.7	30.4	22.0	19.9			16.2	21.1	15.2		20.2	29.7	17.8
1983	27.1	22.4	19.8	30.3	24.1	19.8			16.3	21.1	15.3		20.7	26.8	17.2
1984	28.4	23.1	19.9	32.8	24.7	19.9			16.6	21.4	17.4		22.0	26.4	17.4
1985	29.1	23.4	20.7	33.2	24.6	20.7			16.2	21.8	17.9		22.0	26.1	18.0
1986	28.5	25.4	22.0	31.6	25.4	22.0		22.3	17.7	22.0	18.8			26.4	18.7
1987	28.5	25.5	21.8	32.3	25.0	21.8		22.2	17.1	22.4	19.3			25.9	17.8
1988	29.0	26.4	22.6	32.9	24.9	22.6		22.0	17.0	22.2	16.2			25.7	18.1
1989	29.2	26.4	22.9	32.3	24.8	22.8		22.2	16.9	22.2	16.1			25.8	18.1
1990	28.8	26.4	22.8	33.0	24.8	22.5		21.2	16.5	22.4	16.1			25.5	18.3
1991	29.5	26.5	23.2	34.2	26.0	23.5		21.4	16.7		20.1			25.7	18.3
1992	29.4	26.3	24.2	35.1	26.4			21.5	17.0		20.0			25.7	18.1
1993	30.3	26.3	24.0	34.6	26.4			22.3	17.0		20.1			25.4	18.5
1994	30.1	25.9	23.6	35.8	26.1			22.0	17.0	16.8	20.0			24.8	18.6
1995	30.6	26.1	23.2	34.3	26.2			22.8	17.0	17.1	19.4			25.8	18.5
1996	29.6	25.8	23.1	32.5	25.4			22.7	16.6		19.5			25.4	18.0
1997	31.3	25.6	23.1	33.7	25.2			22.1	18.4	16.7	19.6	17.5		25.7	19.7
1998	30.0	26.3	23.0	33.0	24.9			23.2	18.5		20.0	17.3		24.0	19.3
1999	30.2	26.5	23.3	34.4	25.5			22.3	17.9		20.1	17.2		22.6	19.0
2000	29.8	25.2	25.0	28.0	27.6			22.5	18.3		20.0	17.5		22.5	19.2
2001	29.8	25.3	24.7	30.0	26.8			23.2	18.5		21.9	18.0		22.1	19.1
2002	29.0	25.6	25.5	28.7	27.8			22.9	18.7		22.5	19.1		22.3	19.1
2003	29.2	26.0	23.7	28.7	26.1			23.1	18.7		20.6	17.9		22.5	19.1
2004	27.2	25.8	24.0	28.9	26.8			22.3	18.9		20.7	18.4		22.9	19.3

# Appendix M

Table M-48

Laboratory Fuel Economy Values by Vehicle Type and Size for DC															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	18.5	12.6	13.8	23.0	13.9	12.6		12.6			13.0				13.0
1976	19.5	14.1	13.0	25.5	17.1	12.1		14.2			13.6				14.0
1977	20.0	15.0	12.9	24.1	16.9	12.1		13.8			14.0				14.4
1978	23.6	16.1	12.8	27.0	17.4			13.4			13.5				14.5
1979	27.8	18.6	17.1	25.6	18.1			13.8			12.5		23.9	23.9	13.5
1980	28.3	19.3	17.2	24.3	18.7			17.1	13.3		13.8		24.7	24.7	16.8
1981	30.3	24.3	17.8		25.8			17.6	15.0		15.0			24.6	18.2
1982	31.4	25.1			27.9			17.9	14.5		15.1		29.3	25.6	18.7
1983	31.8	25.2			27.7			18.1	14.7	21.2	14.7		30.9	28.0	18.5
1984	29.7	25.4			28.1		29.8	20.1	13.7	21.4	13.0		28.1	27.3	16.8
1985	29.7	25.8			27.0		27.7	20.9	13.8	21.9	14.6			27.6	16.5
1986	31.0	26.1			28.0		27.0	21.7	14.5	22.0	14.4			27.5	16.2
1987	30.3	25.4			27.6		26.3	22.1	14.7	21.5	14.2			24.5	16.9
1988	30.7	26.5	24.0	31.5	28.0		25.6	23.0	14.6	20.7	18.9			23.6	16.6
1989	30.2	26.1	23.7	32.1	23.4		25.5	22.7	14.4	20.4	18.9			22.7	16.2
1990	29.3	26.1	24.2	32.5	21.1		24.1	23.0	16.0	20.6	19.6			22.4	16.1
1991	29.2	26.4	24.4		21.2		25.7	22.8	16.2	21.1	19.0			21.1	16.1
1992	28.6	26.7	22.7		21.3		27.0	22.6	15.3	20.9	19.5			20.2	16.9
1993	29.5	27.6	24.6		26.0		28.2	23.6	16.1	21.1	19.3			19.7	16.8
1994	29.1	27.7	23.9		25.4		27.0	22.6	16.5	21.0	18.9			20.8	16.8
1995	30.2	27.0	24.7		25.7		26.5	23.0	15.8	21.7	18.9			21.0	16.2
1996	29.6	27.7	24.3	30.2			26.2	22.8	16.4		19.4			20.3	16.5
1997	29.7	27.6	24.2	30.4				22.7	15.9	20.5	19.8			19.8	16.9
1998	29.9	27.6	25.6	29.5	27.2			23.4	17.2	20.3	20.1	17.5		20.5	17.0
1999	29.4	27.4	25.8	28.9	26.7			23.1	17.5	21.0	20.5	16.8		19.2	17.1
2000	30.0	26.7	25.5	28.9	26.7			24.1	17.5	20.8	20.5	17.7		19.7	18.1
2001	30.1	27.0	25.3	27.0	26.1			24.1	17.5	20.7	20.9	17.9		19.6	17.0
2002	30.0	26.7	25.2	25.4	25.3			23.9	16.5	20.3	20.6	18.4		18.2	17.8
2003	29.7	26.5	26.3	25.6	25.9			24.9	16.6	20.9	22.1	17.4		18.1	18.6
2004	29.0	26.7	26.3	27.5	23.7	22.1		23.6		21.0	22.0	18.3		21.0	18.2

# Appendix M

Table M-49

## Laboratory Fuel Economy Values by Vehicle Type and Size for Toyota

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	21.2			22.8			20.5			12.0			21.3		
1976	25.0			24.6						10.9	9.5		22.1		
1977	28.8			27.8						13.7	12.7		27.2		
1978	27.0			25.5						13.0	11.5		24.6		
1979	23.9			24.9						13.8	13.3		19.5		
1980	27.4			27.4						13.8			21.5		
1981	31.1			29.1						14.3			26.5		
1982	30.5			29.3						14.2			25.6		
1983	31.7			34.8							14.1		25.5		
1984	32.8			33.9			27.0				17.3		25.1		
1985	32.1			35.5	24.5		26.6				21.1		27.0	27.9	
1986	32.3			33.7	23.8		26.3				23.3		26.4	29.0	
1987	33.0			32.8	23.6		25.5				22.7		26.6	29.0	
1988	32.7			31.5			25.8				20.3		25.1	24.5	
1989	31.9			30.6			25.9				19.7		23.5	24.5	
1990	31.0	23.4		29.9							19.5		23.1	23.9	
1991	31.2	23.2		30.8				22.9			19.6	14.9	23.8	23.5	
1992	31.2	26.0		31.8	25.2			22.3			17.7	14.5	23.7	23.5	
1993	31.7	26.1		34.2	25.7			21.9			17.8	15.6	26.1		19.5
1994	32.2	26.1		33.8	25.6			22.0			17.8	15.5	24.5		20.5
1995	33.4	27.1	28.3	35.2	27.2			22.6			18.7	16.7	23.8		21.6
1996	33.4	26.9	28.1	35.3	26.9			22.4		29.3	21.7	16.7	24.3		21.5
1997	31.7	28.4	28.6					22.3		25.5	21.2	16.7			20.4
1998	33.9	28.6	27.8					24.2		28.9	21.5	17.3	24.0		20.7
1999	32.8	29.0	28.1					24.1		29.0	22.4	17.1	23.2		
2000	33.4	28.8	28.1					24.1		29.2	21.9	17.1	26.6		20.0
2001	34.5	29.3	26.7					24.7		29.2	22.2	20.1	26.7		20.4
2002	34.2	29.2	28.4					24.7		29.5	22.8	17.8	22.7		18.8
2003	36.8	29.7	27.4	35.2				24.7		29.5	22.5	17.9	22.6		19.2
2004	35.6	30.8	27.4	35.8				25.6		29.6	23.3	17.8	22.4		18.6

# Appendix M

Table M-50

Laboratory Fuel Economy Values by Vehicle Type and Size for Honda															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	31.4														
1976	32.9			29.4											
1977	36.2			31.9											
1978	34.0			31.5											
1979	29.0			29.9											
1980	28.9			32.5											
1981	30.6			33.7											
1982	33.2			36.7											
1983	35.2			36.7											
1984	35.1			36.1											
1985	33.7			34.8											
1986	33.5			34.6											
1987	32.8			34.2											
1988	31.8			34.2											
1989	31.2			34.7											
1990	30.3			35.2											
1991	30.4			28.7											
1992	31.0			27.1											
1993	32.2			27.6											
1994	32.1			29.0											
1995	32.9			29.0				25.5							
1996	32.1	24.5		28.5				28.5			19.4				
1997	32.4	24.5		27.2				24.9			24.7				
1998	35.1	29.1						27.0			25.4				
1999	34.7	28.5						24.1			25.7				
2000	35.4	28.4						23.9			26.0				
2001	36.6	28.8						24.0			25.3				
2002	37.5	28.6						24.2			26.3				
2003	38.0	29.8						24.2			25.0				
2004	37.6	29.9						24.2			24.7				

# Appendix M

Table M-51

Laboratory Fuel Economy Values by Vehicle Type and Size for VW															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	26.4			27.2			20.7								
1976	27.5			27.9			19.9								
1977	28.8			28.7			22.2								
1978	27.2			25.7			20.0								
1979	28.6			25.0			18.7								
1980	30.8			40.1			19.0						31.3		
1981	34.1			40.6			18.5						36.9		
1982	32.9			29.8			21.7						39.2		
1983	30.0			30.6			19.3						32.8		
1984	30.5	22.9		26.2	22.4		20.7								
1985	32.5	22.6		28.7	22.7		21.3								
1986	31.6	23.0		22.7	22.9		19.2								
1987	29.8	23.5		27.5	23.3		18.9								
1988	30.6	23.8		31.4	23.4		19.9								
1989	31.0	23.5		31.7	23.3		20.8								
1990	30.2	24.4		31.7	26.8		20.8								
1991	31.3	25.3			26.9		20.9								
1992	30.8	25.5		22.8	27.6										
1993	28.2	24.3		22.9	24.0			21.0							
1994	28.2			23.5	23.9			20.1							
1995	29.3	24.5		23.4	24.0				19.6						
1996	28.3	28.2		24.1	30.8										
1997	29.0	26.6		24.2	25.1				18.5						
1998	29.4	26.2		24.5	29.2										
1999	29.3	26.3	13.8	26.2	26.5			19.5	18.5						
2000	29.7	25.5	22.8	25.8	25.0			19.7	18.5						
2001	29.4	25.4	23.1	27.0	23.3			20.7							
2002	29.9	26.9	22.6	29.8	26.4			21.0	20.0						
2003	30.0	27.0	23.1	30.0	26.6			21.1	20.0						
2004	29.9	27.3	22.3	31.0	25.8							19.2			



# Appendix M

Table M-52

Laboratory Fuel Economy Values by Vehicle Type and Size for Nissan															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	25.2			20.9									23.6		
1976	26.8			27.4									24.5		
1977	27.2			27.1									25.0		
1978	27.0			25.5									25.6		
1979	26.6			27.9									23.2		
1980	31.1			32.2									25.1		
1981	30.4			31.4									27.7		
1982	30.5			32.0									27.8		
1983	32.5			34.6									27.4		
1984	31.6			35.1									26.2		
1985	29.4			30.0									25.7		
1986	30.2			31.7	27.0								24.7		
1987	29.4			28.4	26.4		22.4				18.7		25.1		
1988	30.7			29.7	26.5		22.3				18.5		24.7		
1989	31.8	25.3		32.3			22.2				19.0		24.8		
1990	29.8	24.9		33.5			25.4				19.5		27.1		
1991	31.0	24.6					26.0				19.5		26.9		
1992	32.1	24.8					25.6				19.6		26.7		
1993	30.3	25.1						21.8			19.4		26.4		
1994	31.2	24.4						22.7			18.6		25.6		
1995	30.4	27.0						23.0			19.1		24.9		
1996	32.5	27.3						22.9			19.8		25.2		
1997	31.1	27.0						22.6			19.6		24.9		
1998	31.9	27.3						22.7			19.5		25.5		
1999	31.0	27.0						23.1			19.5		23.3		
2000	29.5	26.6						22.8		19.7	19.4		26.0		19.5
2001	30.0	25.7						22.6			19.8		26.3		20.0
2002	33.5	27.5						22.6			19.9		26.1		20.0
2003	27.8	27.9	23.0								22.0	20.7	26.2		20.9
2004	28.8	27.6						24.7			22.0	19.3			19.7

# Appendix M

Table M-53

Laboratory Fuel Economy Values by Vehicle Type and Size for Others															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	21.7	17.4		22.5	19.7										
1976	21.6	11.0		22.5	22.3										
1977	23.1	17.6		23.3	28.5										
1978	22.5	17.7		20.6	26.0										
1979	23.9	16.7		24.0	27.0						12.9	15.6			
1980	27.5	18.5			29.9						16.8	18.1			18.7
1981	27.2	16.6		27.2	28.5										
1982	28.0	13.4		28.2	28.3										
1983	26.8	14.6	27.6	29.0	27.1	27.6	39.0		12.8						
1984	26.6	10.7		26.8	24.5		38.6		12.7				24.9		
1985	25.3	10.9	16.3	26.1	24.0			21.6							
1986	26.1	13.4	20.8	26.3	24.6				20.8	25.6					
1987	25.8	15.2	10.4		24.3									23.2	20.0
1988	26.9	17.9	18.1		23.3										20.8
1989	24.8	17.9	20.6		23.2									17.4	
1990	24.5	19.5	20.7		25.9					27.3				21.8	
1991	24.1	18.6			23.2					21.3				17.9	
1992	24.5	19.3		23.2	23.2					19.3	18.7				
1993	25.7	20.3	13.6	24.3	25.7					19.3	18.5				
1994	25.2	21.0	13.6	23.5											
1995	25.2	21.9	13.6	24.4											
1996	26.7	15.8	22.0												
1997	25.5	21.9	22.5												
1998	25.4	22.6	22.3												
1999	24.9	21.3	22.3	23.6											
2000	24.7	21.7	22.4	24.5								17.5			
2001	24.8	21.0	22.4	24.9								19.2			
2002	25.8		23.6	25.5								20.1			
2003	26.2		24.3	25.5		29.6						19.5			
2004	26.1	25.1	23.8	25.8							21.8	19.5			

# Appendix M

Table M-54

## Laboratory Fuel Economy Values by Vehicle Type and Size for All

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	18.3	13.6	13.1	22.4	13.2	11.9	20.6	13.3	12.6	16.1	12.1	12.2	22.5	21.1	13.1
1976	19.9	15.7	14.2	23.9	16.0	13.5	19.9	14.1	13.4	15.9	13.3	12.7	23.8	22.9	13.9
1977	20.7	16.4	15.9	25.5	16.3	15.5	22.2	14.3	15.5	17.0	14.6	13.6	25.5	29.5	14.9
1978	23.2	18.6	16.8	24.3	18.6	15.9	20.0	13.8	15.0	16.9	13.8	13.2	25.6	29.3	14.7
1979	23.3	19.1	17.4	25.7	19.1	16.1	18.7	14.3	12.1	16.7	11.9	11.1	22.8	25.9	14.3
1980	26.1	21.6	19.1	28.6	21.1	19.1	19.0	16.9	16.0	18.8	14.3	14.3	24.3	25.9	17.2
1981	28.5	22.9	20.4	30.0	23.1	19.9	18.5	17.9	16.8	20.4	15.6	15.3	28.2	26.4	18.6
1982	29.1	24.0	20.7	30.6	23.7	19.2	21.7	17.9	16.1	20.5	16.4	18.9	27.3	26.7	18.6
1983	29.4	23.9	20.2	32.2	24.4	19.6	19.7	18.7	16.2	21.4	18.8	17.6	26.9	26.5	18.1
1987	30.1	26.0	23.9	30.7	25.6	22.1	24.3	21.2	17.0	24.2	19.8	17.0	26.0	25.4	17.7
1988	30.5	26.7	24.2	31.3	26.2	22.8	24.5	21.8	16.9	24.2	19.5	16.6	25.0	25.3	18.0
1989	30.2	26.6	24.0	31.5	25.6	22.5	25.0	21.8	16.8	22.8	19.5	16.7	23.9	24.8	18.1
1990	29.8	26.2	23.7	29.6	25.3	22.7	23.9	21.8	16.5	23.4	19.1	16.7	24.8	24.7	18.0
1991	30.0	26.0	23.6	30.6	25.9	22.9	24.0	21.9	16.7	23.6	20.2	16.2	25.0	24.6	18.2
1992	30.0	25.8	23.8	30.2	26.2	22.7	27.0	21.8	16.9	23.4	19.9	15.7	24.6	23.8	18.3
1993	30.5	26.1	24.2	32.5	26.2	22.5	28.2	22.3	17.0	23.2	20.0	16.3	26.3	23.7	18.7
1994	30.4	25.9	24.1	32.9	26.0	22.9	27.0	22.0	17.0	23.8	19.7	16.4	24.9	24.3	18.3
1995	30.7	26.1	24.5	33.3	26.6	22.8	26.5	22.2	17.1	24.2	19.6	16.6	24.4	24.7	18.0
1996	30.8	26.5	24.3	31.6	26.3	23.2	26.2	22.8	17.1	28.5	20.0	17.3	24.6	24.8	18.2
1997	30.9	26.5	24.5	32.3	26.3			22.6	18.6	22.8	20.5	17.5	24.9	24.2	18.9
1998	30.9	27.1	24.6	32.1	26.2			23.3	18.3	23.8	20.8	17.4	24.5	23.9	18.6
1999	30.3	27.1	24.8	31.5	26.3			23.0	17.9	24.1	21.0	17.2	23.2	22.5	18.5
2000	30.3	27.0	25.6	29.2	27.3			23.5	18.0	22.5	21.0	17.6	26.3	22.8	19.3
2001	30.7	27.2	25.4	27.3	26.6			23.9	18.1	24.9	21.5	18.3	26.5	21.8	18.9
2002	30.7	27.7	26.0	26.1	27.4			23.7	17.9	25.2	21.8	19.1	23.2	21.1	18.7
2003	30.8	28.4	25.7	28.9	26.2	29.6		24.2	17.9	24.7	22.4	18.5	23.2	22.6	19.0
2004	30.3	28.4	26.0	30.8	26.8	22.1		23.9	19.0	25.6	22.5	19.1	23.0	22.3	19.3

# Appendix M

Table M-55

Laboratory Ton MPG by Vehicle Type and Size for GM															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	33.1	34.8	34.8	33.6	33.8	33.5		30.9			29.0	28.9	30.6		29.6
1976	35.4	37.8	37.0	35.0	36.6	37.6		30.6	28.9		32.3	31.2	34.5		30.9
1977	36.8	38.9	36.1	38.1	37.7	38.3		32.4			34.9	33.7	34.7		32.3
1978	35.7	35.7	37.2	35.8	36.6	37.1		31.1			33.3	32.8	36.5		31.5
1979	35.8	35.7	37.2	36.1	36.9	36.1		33.9		25.7	29.3	29.2	35.7		34.9
1980	35.3	36.9	40.4	33.4	39.1	44.7		36.4		25.2	36.9	36.8	37.0		39.1
1981	37.1	39.8	44.1	37.3	41.0	47.0		39.5		25.2	41.7	39.3	41.5		40.1
1982	39.1	41.6	43.1	39.6	41.0	43.4		39.8	38.5	26.9	50.4	52.7	47.0	38.8	43.9
1983	40.1	40.4	41.3	40.6	40.5	44.0		43.4	39.4	27.0	45.0	48.7	47.6	41.0	42.5
1984	41.0	40.3	41.9	41.8	40.9	44.9		41.3	37.5	32.4	43.6	45.3	46.4	39.5	41.7
1985	41.9	42.1	43.4	41.4	42.5	47.3		40.5	38.6	32.4	43.0	44.9	44.2	40.0	40.4
1986	42.4	42.2	44.7	41.0	44.1	49.6		41.4	39.8	37.2	40.7	44.5	42.3	39.6	41.0
1987	42.9	43.2	44.2	41.5	45.4	50.2		41.9	46.2	37.2	40.8	46.9	37.2	40.0	40.4
1988	43.6	44.7	45.6	42.6	47.4	51.5		42.7	46.9	37.4	42.0	46.0		41.9	40.8
1989	43.4	43.5	44.6	43.0	45.6	50.4		42.9	46.2	38.8	42.5	47.9		41.4	40.7
1990	43.7	44.9	44.7	44.6	46.5	51.2		44.3	47.2	39.5	41.2	47.8		40.9	41.0
1991	43.5	43.4	46.1	45.0	45.7	51.3		44.9	47.2	39.6	42.2	47.5		41.0	41.5
1992	43.1	44.9	45.0	45.6	45.6	51.1		45.1	45.0	39.5	40.7	44.7		40.2	42.3
1993	43.4	45.5	46.1	45.2	46.1	50.7		45.3	45.7	39.5	43.8	46.7		39.9	43.3
1994	44.4	45.3	46.5	45.2	45.9	51.6		45.5	46.0	38.9	45.1	47.0		44.1	42.4
1995	45.2	45.5	46.9	45.3	46.4	51.3		44.9	44.7	39.4	45.2	46.5		46.1	42.2
1996	45.9	46.5	48.1	45.1	46.6	52.2		47.8	45.9	40.1	46.3	48.4		48.1	45.1
1997	45.9	47.0	46.9	45.6	47.3			47.7	47.7	40.5	46.1	49.2		47.0	47.2
1998	45.8	46.9	46.5	45.8	47.5			47.9	45.8	43.3	46.7	47.3		47.5	44.8
1999	46.6	46.5	47.6	45.7	47.7			48.2	45.5	44.3	45.1	47.3		45.9	47.4
2000	46.9	46.7	49.4	45.8	48.7			48.6	45.3	44.5	45.9	50.1		44.1	46.6
2001	47.5	48.2	50.4	45.9	53.2			50.1	45.7	44.3	45.6	50.4		43.1	47.8
2002	47.3	48.6	50.8	47.8	52.6			49.2	45.9	46.9	45.5	50.5		43.8	48.1
2003	48.5	49.8	50.9	47.8	50.7			50.2	52.2	45.8	47.7	51.1	50.9	44.9	47.6
2004	48.7	49.6	51.2	50.7	52.8			49.9	53.5	45.7	48.2	51.3	53.0	46.6	50.3

# Appendix M

Table M-56

## Laboratory Ton MPG by Vehicle Type and Size for Ford

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	30.2	28.8	30.6	32.1	29.1	30.6			26.4	23.2	26.9		25.8	31.6	26.4
1976	34.5	35.3	36.1	35.6	37.1	36.5			28.0	24.2	29.7		28.0	34.9	29.8
1977	35.9	36.3	35.5	34.6	36.4	34.7		38.5	32.2	25.6	32.4		39.0	44.5	33.6
1978	35.8	35.5	37.7	34.5	34.2	37.8			31.2	25.0	31.5			44.4	33.6
1979	33.5	35.0	35.7	35.9	34.1	36.2			28.6	26.7	28.2			40.3	30.6
1980	34.4	35.5	38.8	37.3	35.5	39.3			37.9	29.6	32.1			39.9	36.4
1981	36.9	34.1	37.6	37.9	36.2	37.8			38.3	31.6	35.1		31.6	40.3	37.9
1982	38.3	35.2	39.5	39.3	38.9	39.7			37.1	30.2	35.2		30.5	43.6	36.7
1983	38.7	37.5	39.6	38.6	42.4	39.6			37.1	30.3	35.6		31.8	39.4	36.4
1984	40.6	41.5	39.8	41.7	43.3	39.8			36.8	35.7	35.4		34.0	40.4	36.6
1985	41.4	41.4	41.5	42.2	43.4	41.4			36.4	38.2	36.0		38.5	39.2	37.6
1986	41.9	44.0	43.9	41.9	44.6	43.9		42.8	40.8	38.5	37.9			41.0	38.9
1987	42.1	43.2	43.7	43.3	43.9	43.7		43.6	39.8	38.9	38.3			40.8	38.8
1988	42.6	44.8	45.3	43.5	43.7	45.3		43.5	41.4	39.0	40.5			40.8	39.9
1989	42.0	46.7	45.7	42.8	43.4	45.5		43.9	40.8	42.7	40.4			41.8	40.7
1990	42.2	47.3	45.6	44.7	43.5	45.0		42.3	40.6	42.7	40.0			42.2	41.4
1991	42.7	47.0	46.4	47.1	45.6	46.9		42.7	41.3		43.9			43.1	41.2
1992	42.9	47.0	48.3	48.3	46.2			43.5	43.7		43.7			44.8	41.9
1993	43.8	47.0	48.0	47.8	46.3			44.8	43.7		44.1			44.5	42.9
1994	44.7	46.8	47.2	49.3	45.8			44.3	43.9	33.6	43.8			44.7	43.3
1995	46.7	46.7	46.4	47.9	45.9			45.5	44.3	34.3	44.3			46.8	43.0
1996	45.8	45.8	46.3	46.8	49.3			45.6	43.3		44.3			45.8	41.8
1997	46.3	45.5	46.3	47.4	49.2			44.4	47.7	33.5	43.9	45.0		46.9	45.2
1998	46.3	45.4	45.9	46.6	48.4			46.5	48.3		43.2	46.0		44.1	45.0
1999	46.3	46.1	46.5	47.4	49.1			48.7	46.2		43.3	47.0		42.0	44.7
2000	47.0	45.7	46.7	49.0	49.4			49.1	46.9		43.3	47.4		42.5	45.5
2001	47.7	45.7	45.7	52.6	48.7			50.4	47.7		42.5	46.3		41.8	46.3
2002	47.1	46.0	47.2	50.2	49.9			50.1	48.1		43.1	44.8		42.4	46.6
2003	47.7	47.9	50.5	50.2	49.7			50.9	49.6		44.3	50.5		43.8	46.9
2004	46.2	48.7	48.0	50.5	49.8			49.2	49.0		45.0	50.9		44.0	52.2

# Appendix M

Table M-57

Laboratory Ton MPG by Vehicle Type and Size for DC															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	34.2	29.0	34.8	31.8	35.0	34.6		27.4			30.4				28.3
1976	35.6	32.2	33.9	35.4	36.5	33.4		30.8			32.1				30.7
1977	36.6	33.1	33.2	33.8	35.2	33.4		30.5			33.7				31.5
1978	37.0	35.0	32.8	39.8	36.4			29.7			32.7				30.8
1979	37.0	36.2	36.7	37.9	36.4			31.0			29.3		32.9	33.0	30.7
1980	36.4	35.2	34.4	36.4	37.6			34.9	32.5		31.8		34.0	34.0	34.8
1981	39.2	36.9	35.8		37.3			35.6	34.9		33.9			35.4	36.2
1982	43.5	39.2			40.5			36.0	33.8		35.2		37.3	37.8	37.6
1983	44.5	39.6			40.5			37.4	34.8	37.2	34.7		40.6	41.6	38.0
1984	41.5	39.5			40.0		41.0	38.3	33.5	37.6	31.1		37.1	40.2	34.7
1985	41.7	40.5			41.3		40.2	38.9	33.4	38.4	34.0			39.9	34.6
1986	42.3	41.1			42.0		40.2	40.9	35.2	38.5	34.8			39.3	34.8
1987	40.9	40.6			42.1		40.6	41.9	35.9	37.6	34.6			40.1	35.7
1988	42.5	42.1	36.0	43.4	42.9		41.3	44.1	35.5	35.7	35.3			39.5	36.3
1989	43.8	42.4	36.3	43.9	41.1		40.0	43.9	34.6	35.6	35.3			38.3	35.3
1990	43.7	43.3	44.9	43.7	42.2		39.0	44.9	39.3	35.7	35.8			39.9	35.9
1991	43.7	43.3	43.8		42.4		40.0	45.7	39.2	37.0	34.7			38.9	36.1
1992	44.1	43.2	44.2		42.5		43.5	45.6	39.3	34.3	35.2			39.1	37.7
1993	44.5	44.1	44.9		45.2		42.9	45.4	39.5	34.5	37.2			39.1	38.0
1994	44.6	41.6	45.4		46.7		44.0	45.0	40.9	33.9	36.5			41.1	40.1
1995	45.0	44.7	46.5		47.8		42.1	44.5	40.1	33.8	36.6			41.8	39.5
1996	44.2	47.2	46.7	45.3			44.8	47.6	41.1		37.0			40.3	41.0
1997	45.0	47.4	46.8	45.6				47.3	41.5	38.6	38.8			40.9	42.8
1998	45.1	48.5	46.2	44.3	54.4			48.4	44.7	35.7	40.0	43.0		42.1	43.7
1999	44.9	49.2	49.1	43.4	53.4			48.1	45.5	39.6	42.6	41.3		40.4	43.6
2000	45.2	47.6	48.8	43.4	53.5			49.5	41.7	39.4	41.0	44.7		42.1	43.2
2001	46.0	48.7	48.2	47.3	52.3			52.8	43.0	39.3	42.4	45.4		41.3	42.8
2002	46.7	47.9	47.9	44.7	50.6			52.9	39.6	38.9	43.8	45.1		41.9	45.6
2003	47.5	48.4	50.0	45.2	51.8			53.3	42.6	44.5	45.9	43.7		41.6	47.8
2004	48.1	48.7	50.0	48.4	51.0	52.4		53.3		41.5	45.2	48.7		45.3	46.7

# Appendix M

Table M-58

## Laboratory Ton MPG by Vehicle Type and Size for Toyota

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	29.2			30.8			35.9			24.0			29.3		
1976	34.4			33.4						22.3	21.3		31.1		
1977	38.3			37.2						28.2	29.3		37.8		
1978	35.9			34.9						26.4	26.5		35.3		
1979	32.7			32.9						27.6	29.9		27.5		
1980	36.2			35.9						27.6			30.9		
1981	40.0			37.7						30.3			38.7		
1982	39.5			37.5						30.9			39.0		
1983	43.6			43.5							31.6		38.8		
1984	44.7			43.8			45.9				35.1		38.3		
1985	44.8			44.3	42.9		43.6				41.2		42.2	41.8	
1986	44.8			42.3	41.7		45.2				47.8		41.6	43.5	
1987	46.7			47.4	41.3		41.8				43.4		41.6	43.5	
1988	45.5			46.1			45.4				41.4		40.1	36.8	
1989	45.2			45.1			45.9				41.1		39.9	42.9	
1990	45.0	46.8		45.0							41.8		39.6	41.8	
1991	44.6	46.5		45.4				45.7			42.9	37.2	40.8	41.1	
1992	43.7	46.0		44.7	44.3			44.6			39.1	36.3	40.3	41.1	
1993	44.5	46.6		47.1	45.3			43.8			39.2	38.9	42.3		37.4
1994	44.8	46.5		46.6	47.8			44.3			39.1	38.9	41.6		37.8
1995	46.8	48.2	49.6	48.4	50.8			46.3			40.7	41.8	40.8		42.9
1996	46.5	47.5	49.1	48.6	50.0			45.5		43.7	41.9	41.8	40.8		42.9
1997	45.5	50.3	50.0					46.0		41.4	42.0	41.8			41.7
1998	49.2	51.2	48.7					48.4		47.2	42.3	49.2	40.6		42.7
1999	48.9	51.6	49.1					48.2		47.4	45.7	51.3	41.2		
2000	48.8	51.2	49.2					48.2		47.5	46.1	51.3	40.1		42.9
2001	51.6	52.2	48.6					49.5		47.7	46.0	48.5	42.6		42.9
2002	52.9	52.0	49.7					49.5		47.5	46.8	49.8	43.0		43.7
2003	52.7	52.4	49.6	52.9				49.5		47.7	47.6	50.1	43.1		44.3
2004	52.3	56.6	50.6	52.8				57.7		47.8	50.9	49.7	42.8		45.7

# Appendix M

Table M-59

## Laboratory Ton MPG by Vehicle Type and Size for Honda

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	31.5														
1976	33.2			33.1											
1977	38.2			36.1											
1978	36.3			35.6											
1979	33.6			33.7											
1980	34.0			36.9											
1981	36.2			38.0											
1982	39.5			41.6											
1983	42.4			41.5											
1984	42.3			40.7											
1985	41.4			40.5											
1986	43.4			41.1											
1987	43.5			41.0											
1988	44.4			44.6											
1989	44.1			44.2											
1990	44.2			47.0											
1991	44.4			46.6											
1992	47.3			47.5											
1993	48.3			48.3											
1994	49.3			50.8											
1995	49.4			50.9				44.7							
1996	48.8	49.0		50.0				49.8			42.1				
1997	48.8	49.0		47.8				43.6			45.8				
1998	50.6	51.2						47.2			46.1				
1999	49.6	50.3						54.2			46.5				
2000	49.5	50.0						53.8			47.1				
2001	53.2	50.6						54.0			48.1				
2002	53.0	50.9						54.5			49.6				
2003	56.5	53.0						54.5			50.2				
2004	56.4	53.7						54.5			49.8				



# Appendix M

Table M-60

Laboratory Ton MPG by Vehicle Type and Size for VW															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	31.1			34.1			36.2								
1976	32.2			34.9			34.9								
1977	34.6			36.4			38.9								
1978	34.0			32.4			35.0								
1979	35.8			31.3			32.9								
1980	38.6			50.5			34.4						37.6		
1981	43.1			50.7			33.8						43.6		
1982	42.9			41.8			42.1						46.2		
1983	39.1			45.2			35.3						42.6		
1984	39.5	34.9		40.9	39.3		37.5								
1985	42.3	35.0		40.0	39.8		39.0								
1986	40.9	35.6		34.1	40.2		36.2								
1987	39.5	37.3		37.9	40.7		36.2								
1988	40.6	37.5		39.6	40.9		38.6								
1989	41.5	41.1		39.6	43.1		42.2								
1990	41.5	43.0		39.6	47.4		41.9								
1991	43.4	43.7			45.5		42.1								
1992	42.7	43.6		45.5	44.6										
1993	41.3	42.3		45.9	42.1			43.7							
1994	43.4			46.9	41.8			42.8							
1995	44.8	41.7		46.7	41.9				48.9						
1996	43.7	51.5		48.3	59.9										
1997	44.8	51.4		48.4	45.1				50.8						
1998	46.3	48.8		47.2	51.3										
1999	45.8	47.9	38.0	47.3	49.1			43.9	51.0						
2000	47.2	47.7	51.2	46.8	45.3			44.4	51.0						
2001	47.7	46.6	52.1	49.0	46.6			50.0							
2002	50.4	48.9	51.8	55.2	50.0			47.2	55.1						
2003	51.4	50.2	52.1	56.3	50.0			47.6	55.1						
2004	49.9	50.4	54.1	57.7	50.0							52.9			

# Appendix M

Table M-61

## Laboratory Ton MPG by Vehicle Type and Size for Nissan

YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	33.4			31.5									32.5		
1976	34.8			37.0									33.8		
1977	35.4			36.2									34.4		
1978	34.6			34.6									35.7		
1979	33.7			34.3									32.4		
1980	38.7			39.0									35.8		
1981	38.9			39.5									40.9		
1982	40.0			40.6									40.9		
1983	41.6			42.7									42.0		
1984	42.5			43.4									41.7		
1985	40.8			39.9									40.3		
1986	42.2			41.2	41.7								39.9		
1987	42.4			42.7	39.8		39.1				37.4		39.9		
1988	42.9			42.9	40.7		40.3				37.1		40.1		
1989	42.6	44.2		44.7			41.4				37.9		40.2		
1990	42.6	44.3		45.1			43.9				39.0		43.1		
1991	45.4	44.2					44.0				39.0		43.1		
1992	46.2	44.3					44.8				39.2		43.3		
1993	45.6	44.3						43.5			41.8		43.2		
1994	45.8	44.1						45.4			40.4		42.7		
1995	45.5	47.6						46.0			40.0		42.0		
1996	47.0	47.9						45.8			39.7		42.2		
1997	45.8	47.7						45.2			43.1		41.7		
1998	50.3	48.2						45.4			42.9		46.1		
1999	50.4	47.7						46.1			42.4		44.3		
2000	48.0	46.6						45.7		42.0	42.0		45.7		41.1
2001	47.8	45.1						45.1			42.7		46.2		41.5
2002	50.6	48.5						45.1			42.7		45.9		42.2
2003	46.8	49.1	46.0								46.5	46.3	46.0		43.5
2004	47.5	52.1						55.5			46.4	49.1			47.9

# Appendix M

Table M-62

Laboratory Ton MPG by Vehicle Type and Size for Others																
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups	
1975	30.2	34.8		30.6	38.1											
1976	30.5	24.7		30.6	40.8											
1977	31.3	36.2		30.1	50.0											
1978	29.8	36.2		28.5	46.9											
1979	33.1	34.2		33.2	47.9						28.3	37.9				
1980	37.1	37.5			52.4						39.0	42.8			43.3	
1981	38.5	35.9		37.5	49.9											
1982	38.3	31.6		38.9	49.5											
1983	39.3	34.6	62.1	40.1	47.5	62.1	44.0		36.4							
1984	39.4	26.9		37.2	43.2		43.7		36.3				31.1			
1985	40.5	27.2	40.4	36.1	42.1			43.1								
1986	38.3	29.9	42.0	36.3	43.1				57.1	35.1						
1987	37.7	31.7	31.3		42.5									40.5	40.0	
1988	38.5	36.8	38.4		40.8										41.7	
1989	38.8	38.2	36.0		40.6									34.8		
1990	39.8	39.8	36.2		39.1					41.0				38.2		
1991	40.7	40.2			40.1					36.8				35.7		
1992	43.2	40.2		46.4	40.2					33.8	37.4					
1993	45.4	43.6	40.7	48.5	38.6					33.8	37.0					
1994	45.6	42.5	44.2	47.0												
1995	45.8	49.5	44.2	48.8												
1996	45.2	43.3	49.6													
1997	43.9	50.3	50.7													
1998	43.6	50.9	50.3													
1999	44.1	49.1	50.6	47.4												
2000	43.9	49.3	50.7	46.1								43.6				
2001	44.6	47.5	50.8	47.9								46.1				
2002	46.3		53.2	49.3								50.4				
2003	46.8		54.9	49.2		59.2						49.8				
2004	45.7	45.2	54.5	49.1							43.7	51.1				

# Appendix M

Table M-63

Laboratory Ton MPG by Vehicle Type and Size for All															
YEAR	Small Cars	Midsize Cars	Large Cars	Small Wagons	Midsize Wagons	Large Wagons	Small Vans	Midsize Vans	Large Vans	Small SUVs	Midsize SUVs	Large SUVs	Small Pickups	Midsize Pickups	Large Pickups
1975	31.9	31.9	33.9	32.1	32.1	32.7	36.1	28.8	26.4	23.3	28.6	28.9	31.1	31.6	28.3
1976	34.8	36.1	36.6	35.0	36.7	36.9	34.9	30.7	28.0	24.0	31.5	31.2	33.1	34.9	30.5
1977	36.4	37.1	35.7	36.2	36.1	36.9	38.9	31.4	32.2	26.1	33.8	33.7	35.5	44.5	32.7
1978	35.6	35.5	37.2	34.6	35.8	37.3	35.0	30.5	31.2	25.2	32.3	32.8	35.9	44.4	32.3
1979	34.6	35.6	36.8	35.0	36.1	36.1	32.9	32.6	28.6	26.7	28.6	29.3	32.2	39.2	32.7
1980	35.8	36.5	39.8	37.6	37.5	43.2	34.4	35.9	37.6	29.3	34.1	37.3	34.5	38.6	37.6
1981	38.2	38.5	42.6	38.2	38.1	44.7	33.8	38.2	38.2	31.4	36.8	39.3	40.5	39.0	38.8
1982	39.6	40.2	42.1	39.6	40.3	42.6	42.1	38.3	37.0	30.0	40.1	52.7	40.4	39.5	40.1
1983	40.8	39.9	40.9	41.5	41.0	43.0	35.7	41.5	37.0	30.2	41.5	48.7	40.6	40.3	39.4
1987	42.5	42.3	44.1	43.2	44.0	48.2	40.3	42.3	39.8	38.3	39.7	46.9	40.9	40.4	39.0
1988	43.3	44.0	45.2	43.3	44.5	49.7	41.9	43.5	41.3	37.9	39.5	46.0	40.1	40.8	40.2
1989	43.3	44.2	44.7	43.7	44.1	48.8	42.5	43.6	40.7	39.4	39.7	47.9	40.0	40.9	40.3
1990	43.5	45.3	45.0	44.9	44.4	49.2	42.6	44.2	40.7	39.1	39.1	47.8	41.2	41.4	40.8
1991	43.7	44.5	46.0	46.1	45.5	50.4	40.7	44.8	41.4	38.1	41.7	45.3	41.8	41.5	41.1
1992	44.2	45.4	46.1	46.5	46.0	51.1	43.5	45.0	43.6	36.7	40.9	43.8	41.2	41.9	42.0
1993	44.6	46.0	46.4	47.1	46.0	50.7	42.9	45.1	43.7	36.6	41.4	46.2	42.7	42.0	42.6
1994	45.4	45.7	46.4	48.1	46.0	51.6	44.0	45.0	43.8	36.9	41.6	46.2	42.0	44.1	42.4
1995	46.2	46.3	46.8	47.8	46.5	51.3	42.1	45.0	44.3	36.3	41.6	46.3	41.5	45.5	42.2
1996	46.1	46.7	47.4	46.7	48.2	52.2	44.8	47.0	44.1	41.4	42.2	47.9	41.4	46.0	43.1
1997	46.2	47.2	46.9	46.8	48.1			46.8	47.6	39.8	43.4	46.9	41.7	45.8	45.4
1998	46.9	48.1	46.5	46.2	48.2			47.7	47.2	41.9	43.3	45.6	42.5	45.1	44.6
1999	46.9	48.1	47.9	46.2	48.6			48.4	45.9	43.0	44.0	45.6	41.8	42.9	45.9
2000	47.0	48.0	48.3	45.5	48.8			49.3	44.8	42.6	43.8	47.6	43.5	43.1	45.1
2001	48.2	48.7	48.1	47.4	50.5			51.4	45.6	43.9	44.0	48.1	44.5	42.1	45.5
2002	48.5	49.3	49.0	46.1	51.1			51.5	45.3	44.8	44.8	48.2	43.5	42.7	46.7
2003	49.5	50.6	50.6	48.9	49.8	59.2		52.1	50.7	45.8	46.7	50.0	44.0	44.2	47.1
2004	49.1	51.5	50.0	50.7	51.1	52.4		52.9	51.9	45.4	47.3	50.9	44.5	44.7	50.0

# Appendix M

Table M-64

Model Year 2004 Laboratory 55/45 Fuel Economy by  
Inertia Weight Class and Marketing Group for Cars

Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000					73.8				73.8
2250				45.4	66.4				56.4
2500			36.6	41.3					41.3
2750	34.5	30.2	34.3	38.3	38.7		36.1	34.7	36.8
3000	32.3	32.0	32.1	64.1	38.5	31.7	33.6	29.6	32.9
3500	28.4	25.8	27.7	29.8	30.6	29.4	26.3	25.2	28.0
4000	25.5	24.4	24.4	26.7	26.5	25.2	26.1	24.0	25.3
4500		22.5	21.6	23.9		23.1		24.4	22.7
5000			17.0					20.3	18.7
5500	20.0		19.0			20.6		16.9	19.1
6000	18.8					13.8			16.3
6500			16.2						16.2
All	29.1	25.6	27.9	32.3	32.4	29.1	28.3	25.8	28.8

Table M-65

Model Year 2004 Laboratory 55/45 Fuel Economy by  
Inertia Weight Class and Marketing Group for Wagons

Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000									0.0
2250									0.0
2500									0.0
2750				37.6					37.6
3000	34.3	31.4		35.3					34.5
3500	28.0	28.9	27.6			30.8		26.4	28.0
4000	27.2	25.3	25.5			25.2		25.5	26.0
4500			22.4			21.5			22.2
5000			21.8						21.8
5500									0.0
6000									0.0
6500									0.0
All	30.2	26.8	25.6	35.8		27.7		25.8	28.5

# Appendix M

Table M-66

Model Year 2004 Laboratory 55/45 Fuel Economy by Inertia Weight Class and Marketing Group for Cars and Wagons									
Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000					73.8				73.8
2250				45.4	66.4				56.4
2500			36.6	41.3					41.3
2750	34.5	30.2	34.3	38.2	38.7		36.1	34.7	36.8
3000	32.5	31.9	32.1	41.0	38.5	31.7	33.6	29.6	33.0
3500	28.4	25.8	27.6	29.8	30.6	29.6	26.3	25.2	28.0
4000	25.7	24.6	24.4	26.7	26.5	25.2	26.1	24.1	25.3
4500		22.5	22.1	23.9		22.3		24.4	22.6
5000			21.7					20.3	21.7
5500	20.0		19.0			20.6		16.9	19.1
6000	18.8					13.8			16.3
6500			16.2						16.2
All	29.1	25.7	27.5	32.6	32.4	29.0	28.3	25.8	28.7

Table M-67

Model Year 2004 Laboratory 55/45 Fuel Economy by Inertia Weight Class and Marketing Group for Vans									
Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000									0.0
2250									0.0
2500									0.0
2750									0.0
3000									0.0
3500									0.0
4000	25.2	23.7	25.7	25.7					25.1
4500	21.5	22.0	24.1	25.6	24.2		24.7		23.9
5000	19.0	19.0	21.2						20.1
5500	18.7	19.5							18.8
6000	19.0	17.4							18.8
6500									0.0
All	22.7	21.7	23.6	25.6	24.2		24.7		23.4

# Appendix M

Table M-68

Model Year 2004 Laboratory 55/45 Fuel Economy by  
Inertia Weight Class and Marketing Group for SUVs

Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000									0.0
2250									0.0
2500									0.0
2750									0.0
3000	23.5			30.9					30.7
3500	26.5	24.4	26.3	28.3	27.7				26.4
4000	23.9	22.1	22.0	25.0	26.4		23.3	21.8	23.1
4500	21.0	20.4	20.6	22.9	22.2		20.5		21.3
5000	20.1	18.7	19.1	19.3				20.8	19.6
5500	18.8	19.5	17.9	18.0		19.2	18.1	18.1	18.5
6000	18.0	17.2	15.9	17.0			17.4		17.8
6500									0.0
All	20.3	19.7	21.1	23.0	24.7	19.2	21.1	20.1	21.0

Table M-69

Model Year 2004 Laboratory 55/45 Fuel Economy by  
Inertia Weight Class and Marketing Group for Pickups

Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000									0.0
2250									0.0
2500									0.0
2750									0.0
3000				27.7					27.7
3500	25.3	25.7		25.8			26.5		25.9
4000	25.0	21.4	22.0	21.2			21.2		22.0
4500	20.7	20.4	20.5	19.6			20.0		20.5
5000	19.9	18.9	18.5	18.2					19.3
5500	18.4	19.5	17.3	17.9			18.1		18.8
6000	18.4	18.4	16.0				17.4		18.3
6500									0.0
All	20.0	20.0	18.9	20.4			19.7		19.9

# Appendix M

Table M-70

## Model Year 2004 Laboratory 55/45 Fuel Economy by Inertia Weight Class and Marketing Group for Trucks

Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000									0.0
2250									0.0
2500									0.0
2750									0.0
3000	23.5			29.8					29.7
3500	26.5	24.9	26.3	27.4	27.7		26.5		26.3
4000	24.6	21.9	22.3	23.2	26.4		22.7	21.8	23.1
4500	20.9	20.9	21.8	23.7	23.2		21.9		21.9
5000	20.0	18.7	19.1	18.5				20.8	19.5
5500	18.6	19.5	17.7	18.0		19.2	18.1	18.1	18.7
6000	18.1	17.9	15.9	17.0			17.4		18.0
6500									0.0
All	20.5	20.1	20.9	22.6	24.6	19.2	21.1	20.1	20.9

Table M-71

## Model Year 2004 Laboratory 55/45 Fuel Economy by Inertia Weight Class and Marketing Group for All

Weight	GM	Ford	DC	Toyota	Honda	VW	Nissan	Others	All
1750									0.0
2000					73.8				73.8
2250				45.4	66.4				56.4
2500			36.6	41.3					41.3
2750	34.5	30.2	34.3	38.2	38.7		36.1	34.7	36.8
3000	32.5	31.9	32.1	36.4	38.5	31.7	33.6	29.6	32.9
3500	28.2	25.6	27.5	29.5	29.8	29.6	26.3	25.2	27.8
4000	25.1	23.5	22.9	24.2	26.5	25.2	24.2	23.4	24.1
4500	20.9	21.3	21.8	23.7	23.2	22.3	21.9	24.4	22.0
5000	20.0	18.7	19.4	18.5				20.8	19.5
5500	18.6	19.5	17.9	18.0		19.3	18.1	18.1	18.7
6000	18.1	17.9	15.9	17.0		13.8	17.4		18.0
6500			16.2						16.2
All	24.1	22.0	23.9	27.0	28.6	27.7	24.1	24.0	24.4



# Appendix M

Table M-72

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

### Model Year 1975 to 2004 GM Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			27.1	21.6	27.0	22.4	19.4	16.6	15.0	13.9	12.6			15.2
1976			29.6	27.1	26.9	23.5	20.4	17.9	16.3	14.8	13.4			16.7
1977			31.1	26.6	28.6	25.3	20.7	18.0	17.0	14.7	13.3			17.9
1978			31.3	27.7		25.9	20.3	18.0	16.3	14.7	12.4			19.2
1979			33.1	28.6		25.6	20.2	17.6	17.0	18.9	11.2			19.4
1980			30.3	27.1	26.1	23.9	20.9	19.0	19.0	13.2				22.1
1981			32.3	29.3	27.3	25.2	22.5	20.8	20.5	12.3				23.4
1982			34.5	32.3	28.8	27.2	22.4	20.8	25.6	11.8				24.6
1983			34.7	32.8	30.1	26.5	22.6	20.4	20.3	11.8				23.7
1984			35.7	33.3	30.9	26.5	22.5	20.7	20.8	11.8				24.5
1985	57.4		40.3	33.4	31.0	27.3	23.3	22.4	26.2					25.7
1986	55.9		40.3	34.2	30.2	27.7	24.4	23.0						27.2
1987	56.8	46.1	39.5	33.9	31.4	28.4	24.5	22.5						27.4
1988	51.6	41.8	40.0	34.6	31.9	28.6	25.7	22.9	22.9					28.3
1989	59.4	45.0	39.7	33.2	31.8	28.2	25.2	23.1	22.4					27.6
1990	65.3	50.8	36.7	34.8	32.0	28.4	25.7	22.6	20.5					27.4
1991	65.3	48.7	36.6	36.2	31.4	27.7	25.3	23.1	22.0					27.2
1992	65.3	47.7	38.6	34.6	31.6	27.8	25.1	22.8	22.7					26.8
1993	65.3	50.1	35.9	35.3	31.4	28.1	25.8	22.8	22.5		17.6	17.6		27.4
1994	65.8	48.9	36.6	35.2	32.2	29.2	25.6	23.1	22.9		18.3			27.5
1995		53.7	39.5	36.4	33.0	29.8	25.9	23.3	22.8		18.6			27.4
1996		52.3	37.3	37.1	33.3	30.4	26.3	24.2	23.2		18.2			28.2
1997		54.4	37.9	36.9	33.0	30.4	26.6	24.1			19.5			28.1
1998		53.6	38.9	37.1	33.5	30.1	26.4	24.0			17.2			27.6
1999		50.3	38.4	36.7	34.4	30.4	26.5	24.3				19.3		27.4
2000		50.8	38.0	36.3	34.4	30.4	26.9	25.1			18.3			27.6
2001			37.7	36.2	34.6	30.8	27.5	25.4				18.3		28.1
2002				36.7	34.7	30.5	27.9	25.5				18.2		28.5
2003					33.5	32.6	27.8	25.3			19.8	18.1		28.8
2004					34.5	32.3	28.4	25.5			20.0	18.8		29.1

# Appendix M

Table M-73

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 GM Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				25.5	24.9	22.5			14.6	13.6	12.2			15.0
1976				28.0		23.2			15.3	14.8	13.6			15.9
1977				29.9		25.4			17.0	14.9				17.5
1978				27.5		26.3	20.8	18.2	16.3	22.0				18.5
1979				28.1		26.0	20.8	18.5	16.0					18.5
1980				26.7			21.4	20.1	19.5					21.4
1981				29.7			21.8	21.9	20.4					23.2
1982				32.6	28.3		22.8	21.6	19.0					23.1
1983				32.5	29.1	28.5	23.3	19.8	19.5					23.9
1984				33.7	30.2	29.2	23.0		19.9					24.8
1985				34.0	29.9	29.4	24.1		21.0					25.4
1986				33.1	29.7	29.0	25.1		22.0					26.1
1987				32.2	30.4	28.0	25.5		22.3					26.3
1988				32.9	31.2	28.7	27.3		22.9					27.3
1989					31.4	28.5	26.6		22.4					26.6
1990					29.8	29.3	26.5		22.8					26.7
1991					30.7	29.6	26.2		22.8					26.4
1992					30.5	29.7	26.8		22.7					26.6
1993				35.9	31.1	29.5	27.0		22.5					27.5
1994				35.8	32.4	29.1	26.5		22.9					27.3
1995				37.8	33.3	28.5	27.3		22.8					27.9
1996					33.5	28.8	26.8		23.2					27.5
1997				38.0	33.5	29.8	27.1							28.9
1998				33.8	34.0	29.7	27.2							29.1
1999				33.9	34.6	29.4	27.2	26.3						28.6
2000				33.7	34.4	29.5	27.7	25.7						28.4
2001					34.0	29.5	28.2	27.4						28.1
2002					33.8	32.1	27.6	27.2						27.6
2003						35.1	29.1	27.2						30.3
2004						34.3	28.0	27.2						30.2

Appendix M

Table M-74

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 GM Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			27.1	22.6	25.8	22.4	19.4	16.6	15.0	13.9	12.5			15.2
1976			29.6	27.5	26.9	23.4	20.4	17.9	16.3	14.8	13.5			16.7
1977			31.1	28.3	28.6	25.4	20.7	18.0	17.0	14.8	13.3			17.9
1978			31.3	27.6		25.9	20.3	18.1	16.3	15.3	12.4			19.2
1979			33.1	28.5		25.6	20.3	17.7	16.8	18.9	11.2			19.3
1980			30.3	27.0	26.1	23.9	20.9	19.1	19.1	13.2				22.0
1981			32.3	29.4	27.3	25.2	22.4	20.9	20.5	12.3				23.4
1982			34.5	32.3	28.7	27.2	22.5	20.8	21.0	11.8				24.4
1983			34.7	32.7	29.8	26.5	22.7	20.4	19.8	11.8				23.7
1984			35.7	33.3	30.7	26.6	22.5	20.7	20.2	11.8				24.6
1985	57.4		40.3	33.4	30.7	27.3	23.4	22.4	21.0					25.7
1986	55.9		40.3	34.1	30.1	27.7	24.4	23.0	22.0					27.1
1987	56.8	46.1	39.5	33.9	31.2	28.4	24.6	22.5	22.3					27.3
1988	51.6	41.8	40.0	34.6	31.8	28.6	25.8	22.9	22.9					28.2
1989	59.4	45.0	39.7	33.2	31.8	28.2	25.2	23.1	22.4					27.5
1990	65.3	50.8	36.7	34.8	31.9	28.4	25.8	22.6	21.3					27.3
1991	65.3	48.7	36.6	36.2	31.4	27.8	25.4	23.1	22.4					27.2
1992	65.3	47.7	38.6	34.6	31.5	27.9	25.2	22.8	22.7					26.8
1993	65.3	50.1	35.9	35.3	31.4	28.1	25.9	22.8	22.5		17.6	17.6		27.4
1994	65.8	48.9	36.6	35.2	32.2	29.2	25.7	23.1	22.9		18.3			27.5
1995		53.7	39.5	36.4	33.0	29.8	25.9	23.3	22.8		18.6			27.4
1996		52.3	37.3	37.1	33.3	30.4	26.4	24.2	23.2		18.2			28.1
1997		54.4	37.9	36.9	33.0	30.4	26.6	24.1			19.5			28.2
1998		53.6	38.9	37.0	33.6	30.1	26.4	24.0			17.2			27.6
1999		50.3	38.4	36.6	34.4	30.3	26.5	24.3				19.3		27.5
2000		50.8	38.0	36.3	34.4	30.3	26.9	25.1			18.3			27.7
2001			37.7	36.2	34.6	30.8	27.5	25.6				18.3		28.1
2002				36.7	34.7	30.5	27.9	25.7				18.2		28.5
2003					33.5	32.8	27.9	25.6			19.8	18.1		28.9
2004					34.5	32.5	28.4	25.7			20.0	18.8		29.1

# Appendix M

Table M-75

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 GM Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975								15.3	12.4	12.7		11.1	10.6	14.4
1976								15.1	12.6	12.6	11.1	11.9	11.5	14.0
1977								16.6	13.4	13.3		13.0	12.3	15.0
1978								16.4	12.8	12.4		12.5	11.7	14.1
1979								18.6	14.5	13.3	12.8			14.7
1980								18.5	16.0	14.3				16.7
1981								19.3	17.7	15.8				18.0
1982								19.6	17.7	16.0	11.9	11.9		17.9
1983								19.7	18.5	19.7	20.1			18.9
1984								20.0	18.1	17.3	17.3			18.2
1985							23.9	21.8	16.7	16.8	13.9	21.3		18.7
1986							26.4	21.4	17.3	17.0	13.9	23.1		19.4
1987							24.7	21.7	17.4	17.4	17.0	22.9		19.8
1988							25.5	21.9	17.9	18.1	17.3	21.7		20.2
1989							24.4	22.2	17.9	17.6	17.5	21.3		20.2
1990							23.5	22.6	19.2	18.3	17.3	21.5		20.7
1991							23.7	22.9	19.5	17.4	17.2	20.4		20.8
1992							23.7	22.5	19.8	19.2	16.7	20.1		20.8
1993							23.7	22.5	20.0	19.1	16.9	21.3		20.7
1994							23.7	22.7	20.0	19.1	17.2	20.6		21.0
1995							23.7	22.8	19.5	18.5	17.7	20.4		20.6
1996							28.1	23.8	21.1	18.7	17.6	17.3		21.5
1997							24.9	23.8	21.2	19.2	18.4			21.9
1998							27.0	23.8	21.4	18.6	18.0			22.2
1999							26.9	24.2	20.9	18.4	17.9			22.0
2000								24.4	20.9	18.5	17.4			22.1
2001								25.3	21.1	18.4	17.8			22.9
2002								25.2	20.5	17.8	18.1			22.3
2003								24.9	21.9	18.2	17.8	17.5		21.8
2004								25.2	21.5	19.0	18.7	19.0		22.7

# Appendix M

Table M-76

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

### Model Year 1975 to 2004 GM SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975								15.6	14.0	11.2	10.2	10.3		11.8
1976							14.3	17.3	14.8	12.7	11.4	11.9		13.1
1977								18.0	15.9	12.9	11.5	11.9		14.7
1978								17.6	15.1	12.6	11.6	11.4		14.0
1979		25.7							12.3	11.7	10.6			11.3
1980		25.2							16.4	14.6	13.8	13.4		14.9
1981		25.2							17.2	16.4	14.1			16.3
1982		25.2	24.8			25.8	16.6	19.3	18.9	17.1	21.2	21.2		19.5
1983		25.2	24.8				24.5	22.0		17.0	20.2	20.8		20.8
1984			28.8			28.3	23.3	22.1		17.1	17.9	21.0		20.6
1985			28.8				23.4	22.0		17.0	16.1	21.4		20.8
1986			33.1				22.4	20.3		17.1	15.7	22.1		20.6
1987			33.1				22.5	20.7		16.6	16.8	20.9		21.2
1988			33.3				23.1	21.2		16.5	16.5	18.3		21.5
1989			33.4	31.3	29.3		22.9	21.5		16.8	17.5	15.8		20.9
1990				31.9	28.7		22.3	20.6		16.6	17.3	16.0		20.3
1991				31.2	28.9	27.2	23.1	21.1		16.5	17.2	15.7	20.2	21.2
1992				30.0	29.0	29.0	22.6	20.3	18.9	16.1	16.3	14.9		20.2
1993				29.4	29.0	28.4	22.9	21.8	20.3	16.9	16.8	15.8		20.4
1994				29.3	28.7	28.0	22.1	20.9	21.0	16.9	16.8	16.1		20.3
1995				29.7	28.4	27.9		20.7	21.3	17.7	16.9	15.7		20.1
1996				29.3	28.3	27.8		22.0	21.0	18.4	17.4	16.8		20.4
1997				28.4	28.4	27.6		21.5	20.9	19.1	17.8	16.7		19.9
1998				28.5	28.5	27.4	26.6	21.6	21.2	18.1	17.4	16.8		21.2
1999					31.0	28.3	25.6	21.4	20.5	18.0	17.8			20.7
2000					31.1	28.3	25.6	21.6	20.8	17.2	18.2	16.8		20.3
2001					31.0	28.4	25.3	22.7	20.1		18.4	17.0		20.2
2002						30.0	26.9	22.7	20.6	19.5	18.7	18.0		20.2
2003						28.0	26.4	22.3	20.6	19.6	18.4	17.6		20.3
2004						23.5	26.5	23.9	21.0	20.1	18.8	18.0		20.3

Appendix M

Table M-77

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 GM Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					22.3		15.0	15.1	11.3	11.0	10.5			14.3
1976					25.0		15.8	15.8	12.5	11.9	11.8			14.6
1977					25.1	24.3	16.5	16.5	13.4	13.1	11.8			15.2
1978				27.2	27.0	25.0	18.1	15.3	13.5	12.7	12.0	12.7	11.8	14.8
1979			25.0	27.5	27.4	23.4	19.8	17.9	15.0	13.7	12.1	10.9		15.5
1980		25.2		26.0	27.7	24.6	19.9	18.7	16.7	16.8	13.5	9.9	12.0	18.6
1981		25.2		28.4	28.5	30.0	21.4	19.3	18.0	18.2				20.2
1982			24.8	29.8	29.9	26.0	21.0	19.6	18.4	20.6	22.4			21.9
1983			24.8	29.6	32.2	26.7	24.0	19.6	18.2	19.1	22.1			21.4
1984			28.8	29.9	31.1	25.5	23.3	19.9	18.0	18.0	21.9			20.8
1985				29.6	31.0	26.1	23.1	20.5	17.3	17.1	21.1	19.6		20.5
1986				30.0	30.2	26.7	22.0	20.5	17.8	17.0	21.1			20.9
1987				29.8	30.0	26.6	22.1	20.5	17.7	16.5	21.1			21.3
1988						28.3	22.8	20.2	17.9	17.0	16.9	19.6		20.4
1989						27.9	22.7	20.8	17.8	16.8	19.2	21.2		20.5
1990						27.4	22.5	20.3	17.6	17.0	18.6	20.5		19.2
1991						26.9	23.5	20.9	18.2	16.6	17.6	19.5		21.4
1992						26.2	23.3	21.3	18.5	16.8	16.4			20.3
1993						25.4	23.6	21.6	19.2	17.1	17.1			20.2
1994						28.1	25.2	21.4	18.5	17.0	17.4	18.1		20.0
1995						27.2	26.5	21.4	18.5	16.9	17.5	18.1		20.2
1996						31.3	28.3	22.5	19.9	18.1	18.1	18.7		21.3
1997						31.3	27.6	22.2	20.5	18.8	17.6	18.7		20.5
1998							27.8	21.8	20.0	17.8	17.4	19.0		21.1
1999							27.1	21.1	20.4	18.7	16.9	16.9		19.8
2000							25.5	20.9	20.5	18.9	16.4			20.8
2001							24.8	20.8	20.8	19.4	16.3			20.4
2002							22.4	22.2	19.8	18.9	17.9	17.9		19.1
2003							25.4	23.6	19.8	18.8	17.7	17.1		19.6
2004							25.3	25.0	20.7	19.9	18.4	18.4		20.0

# Appendix M

Table M-78

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

### Model Year 1975 to 2004 GM Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					22.3		15.0	15.2	11.9	11.2	10.5	10.9	10.6	14.1
1976					25.0		15.8	15.7	12.7	12.3	11.7	11.9	11.5	14.3
1977					25.1	24.3	16.5	16.5	13.9	13.1	11.7	12.4	12.3	15.1
1978				27.2	27.0	25.0	18.1	15.5	13.6	12.6	12.0	11.8	11.7	14.6
1979		25.7	25.0	27.5	27.4	23.4	19.8	18.0	14.9	13.1	11.4	10.9		14.7
1980		25.2		26.0	27.7	24.6	19.9	18.6	16.5	16.1	13.6	12.9	12.0	18.0
1981		25.2		28.4	28.5	30.0	21.4	19.3	17.9	17.2	14.1			19.6
1982		25.2	24.8	29.8	29.9	26.0	21.0	19.6	18.2	19.3	21.7	21.1		21.1
1983		25.2	24.8	29.6	32.2	26.7	24.1	20.4	18.3	18.5	20.7	20.8		20.8
1984			28.8	29.9	31.1	25.6	23.3	21.0	18.0	17.5	18.7	21.0		20.2
1985			28.8	29.6	31.0	26.1	23.3	21.6	17.1	17.0	16.7	21.4		20.2
1986			33.1	30.0	30.2	26.7	22.4	20.8	17.6	17.1	16.1	22.2		20.4
1987			33.1	29.8	30.0	26.6	22.3	21.2	17.6	16.7	16.9	21.2		20.9
1988			33.3			28.3	22.9	21.2	17.9	17.0	16.6	18.7		20.6
1989			33.4	31.3	29.3	27.9	22.8	21.5	17.8	16.8	17.6	15.8		20.6
1990				31.9	28.7	27.4	22.5	21.2	18.3	17.0	17.4	16.0		19.8
1991				31.2	28.9	26.9	23.4	21.4	18.8	16.6	17.2	15.8	20.2	21.2
1992				30.0	29.0	26.3	23.2	21.2	19.1	17.1	16.3	14.9		20.4
1993				29.4	29.0	25.7	23.5	21.9	19.6	17.3	16.8	15.8		20.4
1994				29.3	28.7	28.0	24.7	21.6	19.6	17.2	16.9	16.2		20.3
1995				29.7	28.4	27.6	26.5	21.6	19.6	17.1	16.9	15.8		20.2
1996				29.3	28.3	27.8	28.3	22.6	20.5	18.2	17.5	16.8		20.9
1997				28.4	28.4	27.7	27.5	22.7	20.9	18.9	17.7	16.7		20.5
1998				28.5	28.5	27.4	27.6	22.6	20.8	18.0	17.4	18.0		21.3
1999					31.0	28.3	26.5	22.7	20.5	18.5	17.6	16.9		20.5
2000					31.1	28.3	25.5	22.9	20.7	18.8	18.1	16.8		20.8
2001					31.0	28.4	25.1	23.3	20.4	19.3	18.3	17.0		20.6
2002						30.0	26.3	23.6	20.4	18.9	18.6	18.0		20.0
2003						28.0	26.0	23.5	20.6	19.0	18.1	17.4		20.2
2004						23.5	26.5	24.6	20.9	20.0	18.6	18.1		20.5

# Appendix M

Table M-79

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 GM All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			27.1	22.6	23.3	22.4	18.0	15.9	14.7	13.4	12.4	10.9	10.6	14.9
1976			29.6	27.5	25.3	23.4	18.9	17.0	15.8	14.2	13.3	11.9	11.5	16.1
1977			31.1	28.3	25.2	25.3	19.8	17.6	16.5	14.0	12.3	12.4	12.3	17.3
1978			31.3	27.6	27.0	25.8	20.3	17.4	15.2	13.0	12.2	11.8	11.7	18.0
1979		25.7	33.1	28.4	27.4	24.9	20.3	17.7	16.0	13.3	11.4	10.9		18.1
1980		25.2	30.3	27.0	26.3	23.9	20.9	19.0	18.1	16.0	13.6	12.9	12.0	21.4
1981		25.2	32.3	29.3	27.5	25.4	22.4	20.5	19.4	17.1	14.1			22.8
1982		25.2	34.3	32.3	28.8	26.9	22.4	20.6	19.3	19.2	21.7	21.1		23.8
1983		25.2	34.0	32.7	30.0	26.5	22.8	20.4	18.9	18.5	20.7	20.8		23.1
1984			35.3	33.2	30.7	26.5	22.6	20.8	18.7	17.5	18.7	21.0		23.6
1985	57.4		39.4	33.3	30.7	27.2	23.4	22.2	17.8	17.0	16.7	21.4		24.2
1986	55.9		38.8	34.1	30.1	27.6	24.2	21.8	18.4	17.1	16.1	22.2		25.3
1987	56.8	46.1	37.2	33.9	31.1	28.2	24.3	21.8	18.4	16.7	16.9	21.2		25.5
1988	51.6	41.8	36.7	34.6	31.8	28.6	25.4	21.6	18.6	17.0	16.6	18.7		25.5
1989	59.4	45.0	39.4	32.4	31.8	28.2	24.9	21.7	18.4	16.8	17.6	15.8		24.9
1990	65.3	50.8	36.7	34.1	31.8	28.3	25.6	21.7	18.6	17.0	17.4	16.0		24.6
1991	65.3	48.7	36.6	35.5	31.3	27.6	25.0	22.2	19.2	16.6	17.2	15.8	20.2	24.9
1992	65.3	47.7	38.6	33.7	31.4	27.6	25.0	21.9	19.7	17.1	16.3	14.9		24.3
1993	65.3	50.1	35.9	34.4	31.3	27.7	25.6	22.3	19.9	17.3	16.9	15.9		24.5
1994	65.8	48.9	36.6	33.8	31.9	29.1	25.5	22.2	19.9	17.2	16.9	16.2		24.1
1995		53.7	39.5	35.4	32.4	29.6	26.0	22.4	19.8	17.1	17.0	15.8		24.0
1996		52.3	37.3	36.8	32.5	30.2	26.6	23.4	20.8	18.2	17.5	16.8		25.0
1997		54.4	37.9	36.6	32.8	30.3	26.7	23.3	20.9	18.9	17.7	16.7		24.5
1998		53.6	38.9	36.4	33.4	30.0	26.6	23.2	20.8	18.0	17.4	18.0		24.6
1999		50.3	38.4	36.6	34.4	30.2	26.5	23.4	20.5	18.5	17.6	16.9		23.9
2000		50.8	38.0	36.3	34.4	30.2	26.7	24.0	20.7	18.8	18.1	16.8		24.1
2001			37.7	36.2	34.6	30.6	27.1	24.5	20.4	19.3	18.3	17.0		24.1
2002				36.7	34.7	30.5	27.7	24.7	20.4	18.9	18.6	18.0		23.4
2003					33.5	32.7	27.4	24.5	20.6	19.0	18.1	17.4		23.5
2004					34.5	32.5	28.2	25.1	20.9	20.0	18.6	18.1		24.1



# Appendix M

Table M-80

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

### Model Year 1975 to 2004 Ford Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			24.5	22.1	20.9	21.4	17.1	13.6	13.4	11.4	11.4			14.6
1976		29.2	25.7	21.5	24.5	24.4	18.8	17.1	15.0	14.6	13.2			17.0
1977			31.3	28.1	25.4	23.2	19.1	18.3	16.3	14.3	12.7			17.0
1978		37.3	33.9	22.5	25.3	22.2	19.6	18.0	16.7	14.6	13.5			18.9
1979		32.1	30.4		24.0	21.9	19.4	17.8	16.1	13.9				19.4
1980		29.8	31.7		24.5	23.4	20.1	18.6	18.1					22.4
1981		38.5	33.5	26.4	29.5	23.0	20.8	18.7						23.5
1982			35.3	30.0	29.4	22.8	21.6	19.8	12.0					24.8
1983			35.3	28.5	30.5	23.2	22.6	19.9	11.2	11.3				24.8
1984			37.1	31.1	29.2	25.8	23.3	20.0	11.2	11.3				26.0
1985			37.3	31.8	30.6	27.6	23.2	20.6	10.4	10.3				26.4
1986			35.3	33.7	30.5	27.3	24.5	21.7	10.4	10.3				26.9
1987			35.1	34.3	30.6	26.7	24.9	21.7	10.9	10.9				26.8
1988		45.7	33.1	33.9	31.9	27.3	25.4	22.6	10.9	10.9				27.1
1989		41.4	33.2	33.6	31.6	27.9	25.8	23.4	16.5	10.9				27.1
1990		44.4	37.8	33.7	32.2	27.9	25.8	23.5	17.0	10.9				26.7
1991		43.8	37.7	35.5	32.9	26.5	25.9	23.7	17.0					27.4
1992		44.7	37.7	34.4	32.4	27.6	26.3	24.2	17.0					27.0
1993		44.9	37.6	35.5	32.7	28.3	26.2	24.2	15.3					27.7
1994			41.1	32.9	33.7	28.5	26.1	23.8	15.9					27.1
1995			41.1	32.8	34.9	30.5	26.4	23.4	17.2					27.6
1996			39.8	31.0	35.0	29.5	26.0	23.4	21.4					26.6
1997			42.5	31.7	34.4	30.2	25.7	23.3	22.2					27.0
1998					33.8	30.5	26.1	23.0	19.6					27.5
1999				31.1	34.0	30.4	26.4	23.4	19.7					27.4
2000				31.1	33.4	31.9	26.3	23.5	20.3					27.1
2001					33.1	32.6	25.8	23.7	21.9					26.9
2002					32.9	31.7	26.5	23.6	22.3					27.2
2003					32.0	33.4	26.4	24.1	22.8					27.0
2004					30.2	32.0	25.8	24.4	22.5					25.6

# Appendix M

Table M-81

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				24.5	15.9	21.5	18.9	14.5	13.3	11.1	11.0			14.4
1976				28.4	21.3	25.3	19.0	14.5	13.9	15.0	13.6			16.6
1977				30.9		23.3	19.3	15.7	14.6	14.4	12.7			16.6
1978						23.5	19.3	14.8	13.6	15.2	13.5			18.5
1979				31.4		23.3	19.5	18.3	16.0					19.9
1980		33.7	28.7			23.9	20.9	18.9	18.0					22.8
1981		34.6	30.1			23.4	20.9	18.8	17.2					25.1
1982		34.5	31.3			26.8	22.1	19.9						25.3
1983		33.4	30.7				24.1	19.8						25.8
1984		31.3	32.4	41.1	25.8	24.7	19.9							26.1
1985		31.3	33.2	41.1		24.6	20.7							26.8
1986		31.3	32.9	36.6		25.3	21.6							27.0
1987			34.1	32.4		25.0	21.6							26.5
1988			33.7	32.3		24.9	22.6							26.5
1989			33.8	31.3		24.8	22.8							25.8
1990			36.1	32.5		24.8	22.5							25.3
1991				34.2		26.0	23.5							28.6
1992				35.1		26.4								28.3
1993				34.6		26.4								31.0
1994				35.8		26.1								30.8
1995				34.7		26.2	23.5							30.8
1996				33.7		26.3	25.1							27.5
1997				34.4		26.3	24.9							29.3
1998				33.8		26.4	24.5							27.6
1999				34.4		26.8	25.0							27.2
2000						33.3	27.4	24.7						27.6
2001						32.9	29.3	24.0						26.9
2002						31.6	28.7	25.7						27.8
2003						32.9	28.7	24.9						27.8
2004						31.4	28.9	25.3						26.8

Appendix M

Table M-82

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			24.5	23.0	19.6	21.4	17.2	13.6	13.4	11.4	11.3			14.6
1976		29.2	25.7	22.0	24.2	24.6	18.8	17.1	14.9	14.7	13.3			17.0
1977			31.3	29.9	25.4	23.2	19.2	18.3	16.2	14.3	12.7			16.9
1978		37.3	33.9	22.5	25.3	22.3	19.5	17.9	16.7	14.7	13.5			18.8
1979		32.1	30.4	31.4	24.0	22.1	19.4	17.9	16.1	13.9				19.5
1980		29.8	32.0	28.7	24.5	23.5	20.2	18.6	18.1					22.5
1981		38.5	33.5	28.5	29.5	23.0	20.8	18.7	17.2					23.8
1982			35.3	30.3	29.4	22.8	21.7	19.8	12.0					24.8
1983			35.3	29.1	30.5	23.2	22.8	19.9	11.2	11.3				24.9
1984			37.1	31.4	29.3	25.8	23.5	20.0	11.2	11.3				26.1
1985			37.3	32.0	30.6	27.6	23.4	20.6	10.4	10.3				26.5
1986			35.3	33.5	30.6	27.3	24.7	21.7	10.4	10.3				26.9
1987			35.1	34.3	30.7	26.7	24.9	21.7	10.9	10.9				26.8
1988		45.7	33.1	33.9	31.9	27.3	25.3	22.6	10.9	10.9				27.0
1989		41.4	33.2	33.6	31.6	27.9	25.6	23.4	16.5	10.9				27.0
1990		44.4	37.8	33.7	32.2	27.9	25.6	23.5	17.0	10.9				26.6
1991		43.8	37.7	35.5	33.1	26.5	25.9	23.7	17.0					27.5
1992		44.7	37.7	34.4	32.8	27.6	26.3	24.2	17.0					27.1
1993		44.9	37.6	35.5	33.3	28.3	26.2	24.2	15.3					28.0
1994			41.1	32.9	34.2	28.5	26.1	23.8	15.9					27.4
1995			41.1	32.8	34.8	30.5	26.4	23.4	17.2					27.9
1996			39.8	31.0	34.7	29.5	26.0	23.6	21.4					26.7
1997			42.5	31.7	34.4	30.2	25.7	23.5	22.2					27.2
1998					33.8	30.5	26.1	23.2	19.6					27.5
1999				31.1	34.1	30.4	26.4	23.6	19.7					27.4
2000				31.1	33.4	32.0	26.4	23.6	20.3					27.1
2001					33.1	32.7	25.9	23.7	21.9					26.9
2002					32.9	31.7	26.5	24.0	22.3					27.2
2003					32.0	33.4	26.4	24.3	22.8					27.1
2004					30.2	31.9	25.8	24.6	22.5					25.7

# Appendix M

Table M-83

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975								13.0	11.5	11.1				12.6
1976								13.4	13.5	11.4				13.4
1977								16.0	14.0	11.7				15.5
1978								15.4	13.8	11.9				15.0
1979								15.6	12.4	11.1	11.0	10.6		12.1
1980								19.7	17.1	14.6	12.4	10.9		16.2
1981								19.9	16.9	14.6	13.4			16.8
1982								19.3	16.1	14.8	13.4			16.2
1983								18.8	16.2	15.0	12.1			16.3
1984								18.8	15.7	14.8	12.1			16.6
1985								18.9	15.5	15.0	12.3			16.2
1986						29.0	23.3	21.4	18.3	16.0	12.8			19.7
1987						30.9	23.3	21.9	17.8	15.8	13.6			19.6
1988							22.5	21.8	18.4	16.7	13.6			19.4
1989							22.7	22.1	17.8	16.5	13.6			20.0
1990							22.9	21.1	17.9	16.3	14.2			19.5
1991							23.2	21.3	18.0	16.6	15.0			19.9
1992							23.9	21.7	19.6	17.3	16.0	14.8		19.9
1993							23.7	22.4	19.9	17.3	16.0			20.9
1994							23.7	22.1	20.0	17.4	16.1	15.5		20.0
1995							23.4	22.8	19.4	17.5	16.2	16.0		21.6
1996							23.5	22.8	19.8	17.1	15.8	16.1		21.4
1997							22.3	22.4	19.3	19.0	17.2	16.4		20.7
1998							23.3	19.2	19.3	17.4	16.4			22.3
1999							22.8	22.2	18.1	17.4	16.1			21.0
2000							23.0	22.4	18.5	18.0	16.2		14.2	21.8
2001							22.9	23.3	18.9	18.2	16.1			22.4
2002							23.0	22.9	19.1	17.8	17.1			22.1
2003							23.7	23.0	19.4	17.1	17.6			22.3
2004							23.7	22.0	19.0	19.5	17.4			21.7

# Appendix M

Table M-84

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					16.8			13.2	12.3	10.6				14.5
1976					17.8	15.4		13.7	12.9	13.7				15.0
1977					18.6	16.8		14.7	13.7	14.5				15.8
1978					18.1	16.8		14.5	13.6	13.2				15.0
1979					20.8	17.2	15.6	16.8	13.1	11.0				13.7
1980						19.7	16.3	17.0	13.8	13.1				15.9
1981						20.9	17.2	17.3	15.8	13.3				17.2
1982				23.6		20.2		20.5	15.4	13.2				17.1
1983				23.2		20.5		20.3	15.9	13.1				17.4
1984				22.6		22.6	21.0	16.7	15.2	14.0				19.1
1985						24.2	21.3		15.5	14.0				19.3
1986						24.0	21.6	19.1	15.7	16.0				20.0
1987						22.8	22.1		14.1	16.0				20.6
1988							22.2		17.1	16.2				20.1
1989							23.1	21.8	15.8	16.2				19.2
1990							23.2	21.9	16.5	16.0				18.6
1991								21.1	20.1	16.1				20.1
1992								21.2	19.9	16.2				20.0
1993								21.6	20.1	16.3				20.1
1994								20.9	20.0	17.0				20.0
1995								21.6	19.8	16.8				19.4
1996								22.3	19.8	16.5				19.5
1997								20.9	19.3	18.0	16.9			18.7
1998								21.2	19.4	18.1	16.8	16.0		18.7
1999								21.4	19.4	17.4	17.2	16.4		18.7
2000								20.9	19.6	18.5	17.3	16.2		18.8
2001							24.1	20.8	19.4	18.9	17.3	15.8		19.9
2002							24.4	21.0	19.6	18.6	17.3	15.9		20.1
2003							24.1	21.5	20.3	18.0	18.6	17.2		19.9
2004							24.4	22.1	20.4	18.7	19.5	17.2		19.7

# Appendix M

Table M-85

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975						20.7	14.2	12.7	11.8	10.9	9.3			12.6
1976						22.4	17.5	14.7	12.6	11.5	10.8			13.9
1977						29.1	20.7	17.1	14.0	12.7	12.0			16.0
1978						29.3	19.6	17.1	13.9	12.9	12.4	10.9		15.9
1979						26.6	18.4	15.4	13.4	11.0	9.5			14.8
1980					30.2	26.3	17.5	18.9	14.6	13.3	12.5			18.1
1981					28.9	26.7	21.6	19.2	15.0	13.6	13.3			19.5
1982					29.6	27.5	22.2	18.3	14.3	14.2				18.9
1983					28.5	25.7	21.6	17.9	15.6	13.6				21.0
1984					29.4	26.6	21.9	18.2	15.7	14.7				20.9
1985					28.6	25.7	22.9	18.4	16.4	13.3				20.3
1986					28.8	27.2	23.1	19.0	17.5	15.3				21.7
1987					29.0	27.0	23.3	19.2	17.1	15.9				22.1
1988						27.4	22.6	19.6	17.9	15.6				21.6
1989						27.8	23.5	20.2	18.2	16.0				21.1
1990						28.9	23.2	20.2	18.6	15.9				21.3
1991						28.7	24.4	20.2	18.4	16.2				21.4
1992						28.1	26.0	21.3	18.5	16.9				20.8
1993						28.8	25.6	21.7	19.1	17.0				21.3
1994						29.8	25.7	20.9	19.1	17.5				21.7
1995							26.9	22.0	19.0	17.4	15.6			20.5
1996							26.3	21.8	18.4	17.1				21.4
1997							27.2	21.6	20.0	18.4	16.4			21.2
1998							25.2	21.2	20.1	18.0	16.6			21.0
1999							24.1	20.5	20.1	17.9	15.9			20.5
2000							24.4	20.8	20.1	18.4	16.6			20.6
2001							24.2	20.4	20.3	18.6	17.4			19.9
2002							24.8	20.4	20.3	18.8	17.5	15.9		20.1
2003							26.7	21.0	20.7	19.0	17.5	16.5		20.1
2004							25.7	21.4	20.4	18.9	19.5	18.4		20.0

# Appendix M

Table M-86

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					16.8	20.7	14.2	12.8	11.8	10.9	9.3			12.8
1976					17.8	21.0	17.5	14.2	12.8	11.7	10.8			13.9
1977					18.6	26.2	20.7	16.6	13.9	13.1	12.0			15.9
1978					18.1	25.4	19.6	16.4	13.9	13.1	12.4	10.9		15.6
1979					20.8	22.0	15.7	15.4	13.1	11.0	9.7	10.6		14.2
1980					30.2	23.3	16.4	18.9	14.9	13.6	12.4	10.9		17.4
1981					28.9	23.9	21.4	19.2	15.8	13.9	13.3			18.8
1982				23.6	29.6	24.1	22.2	18.4	15.4	14.2	13.4			18.0
1983				23.2	28.5	24.5	21.6	18.0	15.9	14.1	12.1			19.6
1984				22.6	29.4	25.5	21.4	18.3	15.6	14.4	12.1			19.8
1985					28.6	25.5	21.6	18.5	16.0	14.3	12.3			19.3
1986					28.8	27.2	22.2	19.7	17.5	15.9	12.8			20.9
1987					29.0	26.9	22.6	20.6	17.0	15.9	13.6			21.2
1988						27.4	22.4	20.7	17.9	16.3	13.6			20.9
1989						27.8	23.3	21.7	18.1	16.2	13.6			20.5
1990						28.9	23.2	21.0	18.5	16.1	14.2			20.4
1991						28.7	24.3	21.1	19.2	16.3	15.0			20.7
1992						28.1	25.9	21.5	19.1	16.9	16.0	14.8		20.4
1993						28.8	25.5	22.1	19.5	17.0	16.0			20.9
1994						29.8	25.6	21.4	19.5	17.4	16.1	15.5		20.9
1995							26.8	22.7	19.3	17.3	16.2	16.0		20.7
1996							26.2	22.7	19.3	16.9	15.8	16.1		20.8
1997							27.0	21.9	19.6	18.4	16.9	16.4		20.2
1998							25.2	22.3	19.7	18.2	16.8	16.0		20.3
1999							24.1	21.2	20.4	17.9	17.1	16.4		19.9
2000							24.4	21.2	20.6	18.5	17.3	16.2	14.2	20.1
2001							24.1	21.0	20.8	18.7	17.4	15.8		20.2
2002							24.5	21.0	20.2	18.8	17.5	15.9		20.3
2003							24.7	21.4	21.0	18.7	17.8	17.2		20.2
2004							24.9	21.9	20.9	18.7	19.5	17.9		20.1

# Appendix M

Table M-87

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Ford All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			24.5	23.0	18.1	21.3	17.2	13.1	12.7	11.3	11.1			14.1
1976		29.2	25.7	22.0	20.8	23.9	18.8	15.6	13.9	14.1	13.0			16.0
1977			31.3	29.9	23.1	24.0	19.2	17.4	15.3	14.1	12.6			16.6
1978		37.3	33.9	22.5	22.8	22.7	19.5	16.5	15.8	14.2	13.0	10.9		17.7
1979		32.1	30.4	31.4	23.9	22.1	19.1	16.5	14.9	12.2	9.7	10.6		17.6
1980		29.8	32.0	28.7	24.5	23.5	20.0	18.8	15.7	13.6	12.4	10.9		20.9
1981		38.5	33.5	28.5	29.3	23.1	20.9	19.0	15.9	13.9	13.3			22.1
1982			35.3	30.1	29.5	23.0	21.7	19.1	15.4	14.2	13.4			22.6
1983			35.3	28.8	28.9	23.7	22.7	19.1	15.9	14.1	12.1			22.8
1984			37.1	31.3	29.3	25.6	22.9	19.3	15.6	14.4	12.1			23.6
1985			37.3	32.0	30.4	26.5	22.9	19.8	16.0	14.3	12.3			23.9
1986			35.3	33.5	30.4	27.3	23.7	20.7	17.5	15.9	12.8			24.3
1987			35.1	34.3	30.5	26.8	23.9	21.2	17.0	15.9	13.6			24.3
1988		45.7	33.1	33.9	31.9	27.4	24.5	21.9	17.9	16.3	13.6			24.7
1989		41.4	33.2	33.6	31.6	27.8	25.1	22.7	18.1	16.2	13.6			24.5
1990		44.4	37.8	33.7	32.2	28.1	25.0	22.5	18.4	16.1	14.2			24.1
1991		43.8	37.7	35.5	33.1	27.0	25.5	22.4	19.2	16.3	15.0			24.5
1992		44.7	37.7	34.4	32.8	27.6	26.2	23.1	19.1	16.9	16.0	14.8		23.9
1993		44.9	37.6	35.5	33.3	28.4	26.1	23.1	19.5	17.0	16.0			24.8
1994			41.1	32.9	34.2	28.6	25.9	22.7	19.5	17.4	16.1	15.5		24.1
1995			41.1	32.8	34.8	30.5	26.5	23.0	19.3	17.3	16.2	16.0		24.3
1996			39.8	31.0	34.7	29.5	26.1	23.2	19.3	16.9	15.8	16.1		23.6
1997			42.5	31.7	34.4	30.2	26.1	22.8	19.6	18.4	16.9	16.4		23.1
1998					33.8	30.5	25.8	22.6	19.7	18.2	16.8	16.0		23.1
1999				31.1	34.1	30.4	25.8	22.3	20.4	17.9	17.1	16.4		22.9
2000				31.1	33.4	32.0	25.9	22.4	20.6	18.5	17.3	16.2	14.2	23.0
2001					33.1	32.7	25.3	22.4	20.8	18.7	17.4	15.8		22.7
2002					32.9	31.7	25.8	22.6	20.2	18.8	17.5	15.9		22.7
2003					32.0	33.4	25.7	22.6	21.5	18.7	17.8	17.2		22.6
2004					30.2	31.9	25.6	23.5	21.3	18.7	19.5	17.9		22.0



# Appendix M

Table M-88

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 DC Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				23.7	22.2		20.0	16.3	12.7	13.7	12.6			15.0
1976				28.6	24.5	25.5	20.1	17.7	14.1	13.5	12.4			16.2
1977			34.2	29.5	22.4		22.6	17.2	14.6	13.1	12.1			16.3
1978			38.6	28.7	30.0	25.6	21.0	17.5	15.4	13.2	11.0			19.2
1979		37.6	35.9	28.1	25.2	24.4	21.2	18.1	16.3					21.2
1980		38.8	31.3	27.4	25.8	24.4	20.7	18.0						23.5
1981		41.7	34.1	29.6	26.8	23.1	22.9	19.6						27.0
1982		41.7	36.5	32.6	28.8	26.3	23.6	21.2						27.4
1983		42.8	35.4	34.0	30.2	25.7	24.4	21.0						27.7
1984		44.8	36.1	31.5	29.0	26.6	25.0	20.9						27.5
1985			40.4	31.7	29.8	26.2	24.5	21.6						27.5
1986			40.7	33.5	29.8	26.9	23.4	20.9	16.8					28.4
1987			39.6	32.2	29.3	26.5	24.4	20.7						28.1
1988			39.7	33.9	30.3	27.7	24.6	20.1						29.0
1989				35.4	30.8	28.4	24.7	19.4						28.3
1990				35.0	31.7	28.6	25.2	22.4	17.5					27.8
1991				35.2	31.8	28.5	25.2	22.3	17.8					27.8
1992				35.1	31.3	28.8	25.2	23.1	18.8	17.3				27.6
1993			42.6	36.0	30.9	29.1	25.6	24.0	19.8	18.9	15.6			28.0
1994			41.8	35.9	30.6	28.6	25.3	23.6	20.1	20.0	16.1			27.1
1995			41.8	36.2	31.7	28.9	26.2	24.3	22.2	19.8				28.4
1996			40.0	36.0	30.9	29.3	26.2	24.3	22.6	19.9				27.8
1997				37.2	31.4	29.3	26.5	24.3	22.0	20.2				27.9
1998				36.9	31.6	29.4	26.9	26.5	21.6	20.2				28.7
1999				36.5	31.0	29.3	27.3	25.1	22.1	20.1				27.8
2000				37.2	31.8	30.2	26.8	25.2	21.9					28.0
2001				34.2	31.9	31.9	27.0	24.8	22.2	19.2				28.3
2002				36.7	33.4	31.2	26.9	24.5	22.0	19.1				28.1
2003				36.6	34.2	31.7	27.4	24.9	21.5			15.7		28.6
2004				36.6	34.3	32.1	27.7	24.4	21.6	17.0	19.0		16.2	27.9

# Appendix M

Table M-89

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

### Model Year 1975 to 2004 DC Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					23.0					13.9	12.6			15.5
1976					25.5			18.3	14.0	14.0	12.1			17.0
1977					24.1			17.7	13.9	13.9	12.1			16.5
1978					31.1	25.7		18.2	16.1	14.6				17.7
1979					30.4	24.4		18.2	15.9					18.2
1980						24.3		18.7						19.2
1981					26.6			20.2						25.8
1982					29.2	26.2		29.3						27.9
1983					30.7	24.8		29.4						27.7
1984					28.9	25.6		29.0						28.1
1985					33.1	26.9		26.9						27.0
1986					33.8	27.9								28.0
1987					32.0	27.6		26.6						27.6
1988				35.0	32.8	28.5		20.6						28.7
1989				36.2	31.5	27.7		21.0						28.8
1990				34.1	32.3	29.2		21.1						25.1
1991								21.2						21.2
1992								21.3						21.3
1993						27.7	26.0	24.3						26.0
1994							26.1	24.2						25.4
1995						26.1	26.1	25.2						25.7
1996						30.2								30.2
1997						30.4								30.4
1998						29.5		27.2						28.1
1999						28.9		26.7						27.9
2000						28.9		26.7						28.4
2001							27.0	26.1						27.0
2002							25.4	25.5						25.4
2003							25.7	25.5						25.7
2004							27.6	25.5	22.4	21.8				25.6

# Appendix M

Table M-90

## Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

### Model Year 1975 to 2004 DC Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				23.7	23.0		20.0	16.3	12.7	13.7	12.6			15.1
1976				28.6	24.8	25.5	20.1	17.9	14.1	13.6	12.3			16.4
1977			34.2	29.5	22.7		22.6	17.4	14.6	13.3	12.1			16.3
1978			38.6	28.7	30.1	25.6	21.0	17.7	15.5	13.5	11.0			19.0
1979		37.6	35.9	28.1	25.3	24.4	21.2	18.1	16.3					20.9
1980		38.8	31.3	27.4	25.8	24.3	20.7	18.1						23.2
1981		41.7	34.1	29.6	26.7	23.1	22.9	19.6						26.8
1982		41.7	36.5	32.6	28.8	26.3	23.6	21.3						27.5
1983		42.8	35.4	34.0	30.2	25.5	24.4	21.1						27.7
1984		44.8	36.1	31.5	29.0	26.6	25.0	21.0						27.6
1985			40.4	31.7	29.8	26.3	24.5	21.6						27.5
1986			40.7	33.5	29.8	27.0	23.4	20.9	16.8					28.4
1987			39.6	32.2	29.3	26.6	24.4	20.8						28.1
1988			39.7	33.9	30.3	27.7	24.6	20.1						29.0
1989				35.4	30.8	28.4	24.7	19.5						28.3
1990				35.0	31.7	28.6	25.2	22.3	17.5					27.8
1991				35.2	31.8	28.5	25.2	22.2	17.8					27.8
1992				35.1	31.3	28.8	25.2	23.0	18.8	17.3				27.6
1993			42.6	36.0	30.9	29.1	25.6	24.0	19.8	18.9	15.6			28.0
1994			41.8	35.9	30.6	28.6	25.3	23.6	20.1	20.0	16.1			27.1
1995			41.8	36.2	31.7	28.9	26.2	24.4	22.2	19.8				28.4
1996			40.0	36.0	30.9	29.4	26.2	24.3	22.6	19.9				27.8
1997				37.2	31.4	29.3	26.5	24.3	22.0	20.2				27.9
1998				36.9	31.6	29.4	26.9	26.6	21.6	20.2				28.7
1999				36.5	31.0	29.2	27.3	25.1	22.1	20.1				27.8
2000				37.2	31.8	30.1	26.8	25.2	21.9					28.0
2001				34.2	31.9	31.9	27.0	24.9	22.2	19.2				28.2
2002				36.7	33.4	31.2	26.5	24.5	22.0	19.1				27.8
2003				36.6	34.2	31.7	27.0	24.9	21.5			15.7		28.2
2004				36.6	34.3	32.1	27.6	24.4	22.1	21.7	19.0		16.2	27.5

# Appendix M

Table M-91

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 DC Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975							18.8	14.3	11.5	11.2				12.6
1976							19.5	14.9	13.6	11.5				14.2
1977							19.6	15.5	13.3	12.3				13.8
1978							19.2	14.9	12.9	12.6				13.4
1979								15.8	13.7	11.7	10.6			13.8
1980							18.3	17.7	14.8	12.8	11.2			16.6
1981							19.9	17.8	15.6	13.3	11.1			17.4
1982							20.4	18.0	15.4	13.2				17.7
1983								18.6	15.9	13.0				18.0
1984					29.8	25.1	23.9	16.7	14.7	13.1	11.2			20.3
1985					29.8	25.8	23.2	17.2	15.1	13.3	12.0			21.0
1986					29.4	26.5	24.1	18.4	16.5	15.0	12.2			22.0
1987					29.3	26.8	24.4	21.2	16.7	15.2	12.0			22.3
1988						27.4	24.6	22.8	17.4	15.7	12.9			23.0
1989						26.3	24.3	23.2	16.4	15.5	12.2			22.6
1990						25.6	25.3	23.0	16.9	16.2	12.4			23.0
1991						26.2	25.7	23.2	17.9	16.2				22.8
1992						28.3	25.8	23.1	17.0	15.3	14.6			22.9
1993						28.5	25.3	23.2	18.2	16.2	15.2			23.7
1994						28.4	24.7	23.1	17.8	16.6	15.7			22.6
1995						27.7	25.1	23.0	17.1	16.4	15.3			23.0
1996						27.7	25.9	24.0	20.5	17.1	14.7			22.8
1997								23.7	20.6	17.5	14.9	14.4		22.7
1998								24.2	21.8	17.3	17.1			23.3
1999								23.9	21.8	17.8	17.2	14.0		23.0
2000								24.5	21.7	17.4	15.7	16.0		23.4
2001								24.8	23.7	18.9	16.4	15.8		23.4
2002								25.8	23.6	19.3	15.5	16.0		23.4
2003								26.1	23.9	20.2	16.1	16.1		24.0
2004								25.7	24.1	21.2				23.6

# Appendix M

Table M-92

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 DC SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975								13.7	14.1		10.6			13.0
1976								16.1	14.5		11.2			13.6
1977								16.4	15.3		11.9			14.0
1978								16.4	14.4		12.0			13.5
1979								16.6	12.4	12.1				12.5
1980								17.6	14.2	12.4				13.8
1981								17.3	15.1	13.6				15.0
1982									15.8	13.7				15.1
1983							21.2		15.2	14.1				15.5
1984							21.4		14.2	12.1				13.6
1985							21.9		14.9	14.0				15.0
1986							22.0		15.8	13.6				15.6
1987							21.5		16.4	13.1				17.8
1988						22.8	20.3		14.6	14.6				19.3
1989						22.2	20.3	19.3	14.5	13.2				19.3
1990						22.2	20.5	19.7	14.6	14.3				19.9
1991						23.3	19.9	19.6	14.4	14.9				19.5
1992						22.6	19.6	19.3	19.0	15.0				19.9
1993						22.7	19.8	19.1	19.1	15.3				19.5
1994						22.4	19.8	18.5	18.8					19.2
1995						22.4	19.8	18.4	18.8					19.4
1996						24.5	20.2	18.9	19.2					19.4
1997						24.3	21.2	19.5	20.0					20.2
1998							21.1	19.9	20.0	16.5				19.5
1999							22.6	20.5	18.8	17.2				19.5
2000							21.4	20.5	18.8	17.1	20.4			19.7
2001							21.8	20.9	19.6	16.8	20.8			20.1
2002							23.0	21.2	19.5	18.3				20.1
2003							25.4	22.6	20.8	19.3	17.8	18.3		21.4
2004							26.3	22.0	20.6	19.1	17.9	15.9		21.1

# Appendix M

Table M-93

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 DC Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975							18.7	13.2	12.8		10.8			13.0
1976							19.8	15.4	13.1		11.3			14.0
1977							19.9	15.7	13.7		11.9			14.4
1978							19.1	15.3	13.3		12.0			14.5
1979					23.9			16.5	12.3	11.7	11.7			15.1
1980					24.7		18.2	18.0	14.1	12.8	11.4			20.3
1981					25.1	24.2	20.2	18.4	15.0					20.2
1982				29.6	27.8	24.8	22.5	18.6	15.4	13.7				21.5
1983				33.7	29.1	27.2	25.2	18.9	15.2	13.4				24.1
1984				30.0	27.9	26.3	20.9	17.7	14.2	12.5				19.7
1985					28.5	26.6	22.5	17.2	15.0	13.4				19.3
1986					28.7	25.2	24.2	17.8	14.9	13.0				20.6
1987					29.8	27.4	22.1	18.6	15.2	13.7				21.6
1988					29.6	26.9	21.7	19.0	16.1	13.8				21.6
1989					29.6	27.3	20.7	18.2	15.5	14.0				20.5
1990						24.8	22.8	19.7	16.0	14.0				19.8
1991						24.7	23.1	19.3	16.0	14.2	12.4			19.6
1992						24.7	22.9	19.3	17.3	15.2	13.9			19.6
1993						25.0	22.0	19.5	17.3	15.8	14.2			19.2
1994						25.5	23.8	20.6	17.9	15.9	15.2			18.5
1995						26.0	26.0	20.3	17.5	15.8	15.1			18.0
1996						25.1	23.2	19.9	17.6	16.6	15.1			17.4
1997							24.6	20.3	18.0	17.1	16.0			17.7
1998							26.8	20.9	18.6	17.0	16.3	15.5		18.0
1999							26.4	20.2	18.0	17.3	16.2	16.2		17.7
2000							25.7	21.3	18.9	17.0	16.1	15.8		18.4
2001							25.6	20.4	18.9	17.1	15.5	15.8		17.3
2002							26.0	20.8	19.2	18.3	16.5	15.3		17.9
2003								21.3	19.8	19.6	16.8	15.9		18.7
2004								22.0	20.5	18.5	17.3	16.0		18.9

# Appendix M

Table M-94

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 DC Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975							18.8	14.0	11.9	11.2	10.7			12.7
1976							19.7	15.2	13.5	11.5	11.3			14.1
1977							19.8	15.6	13.6	12.3	11.9			14.1
1978							19.1	15.2	13.1	12.6	12.0			13.9
1979					23.9			16.2	13.0	11.8	10.6			14.4
1980					24.7		18.3	17.9	14.3	12.7	11.2			18.9
1981					25.1	24.2	20.1	18.1	15.3	13.4	11.1			18.9
1982				29.6	27.8	24.8	21.6	18.3	15.5	13.6				19.7
1983				33.7	29.1	27.2	24.9	18.8	15.5	13.6				21.7
1984				30.0	28.4	25.7	23.3	17.2	14.4	12.3	11.2			19.4
1985					28.6	26.0	23.2	17.2	15.0	13.7	12.0			19.9
1986					28.8	26.0	24.0	17.9	15.9	13.9	12.2			21.1
1987					29.8	27.2	23.5	19.5	16.2	14.0	12.0			21.6
1988					29.6	26.5	22.2	21.8	16.2	14.5	12.9			21.6
1989					29.6	25.5	22.0	21.8	15.7	14.0	12.2			21.1
1990						23.7	22.8	22.2	16.2	14.7	12.4			21.5
1991						25.0	21.3	22.3	16.8	14.9	12.4			21.2
1992						25.0	21.5	22.3	17.4	15.2	14.6			21.5
1993						24.2	22.6	20.9	17.8	15.8	14.7			21.3
1994						23.5	22.0	21.2	17.9	16.0	15.3			20.6
1995						22.9	22.7	20.2	17.6	15.8	15.1			20.1
1996						24.7	20.6	21.7	19.5	16.6	15.1			20.2
1997						24.3	21.4	21.6	19.6	17.1	16.0	14.4		20.3
1998							21.4	21.9	20.1	16.8	16.3	15.5		20.1
1999							22.8	22.0	19.4	17.3	16.3	16.1		20.0
2000							21.5	22.3	19.7	17.1	17.8	15.8		20.5
2001							21.9	21.5	21.3	17.1	16.5	15.8		19.8
2002							23.0	22.1	21.0	18.4	16.5	15.3		20.3
2003							25.4	23.6	21.8	19.6	16.8	16.0		21.2
2004							26.3	22.3	21.8	19.1	17.7	15.9		20.9

# Appendix M

Table M-95

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 DC All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				23.7	23.0		19.9	15.2	12.5	13.7	12.2			14.6
1976				28.6	24.8	25.5	20.0	17.4	13.9	13.6	12.1			15.9
1977			34.2	29.5	22.7		22.2	17.2	14.2	13.2	12.1			15.9
1978			38.6	28.7	30.1	25.6	20.8	17.2	14.3	13.4	11.4			17.5
1979		37.6	35.9	28.1	24.5	24.4	21.2	17.7	14.5	11.8	10.6			18.8
1980		38.8	31.3	27.4	24.7	24.3	20.6	18.1	14.3	12.7	11.2			22.2
1981		41.7	34.1	29.6	26.6	23.5	22.1	19.1	15.3	13.4	11.1			25.4
1982		41.7	36.5	32.2	28.8	26.0	22.4	20.1	15.5	13.6				25.3
1983		42.8	35.4	34.0	30.1	25.8	24.6	20.1	15.5	13.6				26.0
1984		44.8	36.1	31.4	28.9	26.5	23.3	19.0	14.4	12.3	11.2			24.7
1985			40.4	31.7	29.6	26.3	23.2	19.7	15.0	13.7	12.0			24.5
1986			40.7	33.5	29.6	26.9	23.9	19.7	16.0	13.9	12.2			25.6
1987			39.6	32.2	29.4	26.7	23.6	20.2	16.2	14.0	12.0			25.6
1988			39.7	33.9	30.2	27.6	22.7	21.3	16.2	14.5	12.9			25.5
1989				35.4	30.7	28.0	23.0	21.4	15.7	14.0	12.2			24.7
1990				35.0	31.7	28.0	23.9	22.2	16.3	14.7	12.4			24.6
1991				35.2	31.8	28.3	23.5	22.3	16.9	14.9	12.4			24.8
1992				35.1	31.3	28.2	23.5	22.4	17.5	16.2	14.6			24.3
1993			42.6	36.0	30.9	28.5	24.0	21.1	17.9	17.5	15.2			24.1
1994			41.8	35.9	30.6	27.8	23.5	21.7	18.0	16.5	15.3			23.1
1995			41.8	36.2	31.7	27.0	24.5	21.0	18.0	16.3	15.1			23.8
1996			40.0	36.0	30.9	29.2	23.9	22.1	19.6	16.7	15.1			22.8
1997				37.2	31.4	29.3	24.5	22.1	19.7	17.3	16.0	14.4		23.1
1998				36.9	31.6	29.4	25.2	22.1	20.2	16.9	16.3	15.5		22.7
1999				36.5	31.0	29.2	26.5	22.6	19.5	17.3	16.3	16.1		22.5
2000				37.2	31.8	30.1	25.3	22.8	19.9	17.1	17.8	15.8		23.3
2001				34.2	31.9	31.9	26.2	22.3	21.4	17.1	16.5	15.8		23.1
2002				36.7	33.4	31.2	26.3	22.7	21.1	18.4	16.5	15.3		23.2
2003				36.6	34.2	31.7	26.9	24.0	21.8	19.6	16.8	15.9		24.2
2004				36.6	34.3	32.1	27.5	22.9	21.8	19.4	17.9	15.9	16.2	23.9



# Appendix M

Table M-96

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				23.9	20.8	22.6								21.2
1976				26.8		23.4								25.0
1977			41.0	30.2	25.6	24.6								28.8
1978			39.0	28.9	24.5	21.4								27.0
1979			31.7	26.6		20.8								23.9
1980		37.0	34.1	29.0	26.6	23.2								27.4
1981		44.0	36.6	30.0		27.4								31.1
1982		43.8	35.3	30.1	28.4	26.9	24.3							30.5
1983		47.4	37.9	33.6	33.1	29.0	24.6							31.7
1984		47.2	38.4	36.2	33.2	29.2	24.3							32.8
1985			39.6	34.8	34.1	30.4	24.1							32.1
1986			38.6	35.2	33.2	31.2	23.6	23.2						32.3
1987			41.3	35.6	32.9	33.1	23.6	23.1						33.0
1988			38.5	34.7	33.1	32.1	24.6	23.3						32.7
1989			37.7	34.7	33.3	31.9	24.6	23.0						31.9
1990			38.3	34.7	32.2	31.3	24.4	23.4						30.4
1991			36.2	33.0	32.6	31.0	24.6	23.2						30.6
1992			37.1	33.4	32.4	29.3	26.3	23.0						28.9
1993			37.1	33.3	33.4	29.0	26.6	23.1						28.9
1994			38.3	32.5	33.2	29.9	26.5	23.4						29.0
1995			40.1	39.1	34.2	29.1	27.4	23.9						30.0
1996			40.0	38.4	34.1	28.8	27.1	24.9						29.5
1997			40.8	36.4	33.3	28.4	28.1	24.7						29.8
1998			40.3	37.5	36.6	28.5	28.7	24.4						30.2
1999			40.3	37.2	36.5	28.6	28.7	24.8						30.4
2000			43.1	38.4	36.1	30.1	28.6	24.5						30.5
2001			43.5	39.7	38.1	48.9	28.6	24.0						31.3
2002			43.4	39.5	37.9	53.6	29.3	24.0						30.7
2003			45.4	41.3	38.0	52.6	29.1	24.1						31.9
2004			45.4	41.3	38.3	64.1	29.8	26.7	23.9					32.3

# Appendix M

Table M-97

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				24.2		20.8								22.8
1976				26.2		22.5								24.6
1977				29.8		24.4								27.8
1978				29.0		21.5								25.5
1979				26.8		20.6								24.9
1980				28.9		22.8								27.4
1981				29.6		26.8								29.1
1982				29.8		25.9								29.3
1983			38.7	34.7			25.1							34.8
1984				34.9			25.1							33.9
1985			38.5	35.4			24.5							35.1
1986				33.7			23.8							32.1
1987				32.8		32.7	23.6							32.6
1988				35.1	33.0	31.6	24.6							31.5
1989				35.0	33.0	31.0	24.3							30.6
1990				35.3	32.9	30.7	24.3							29.9
1991				35.5	33.1	30.7	24.1							30.8
1992				35.5	32.7	28.7	25.2							28.9
1993					34.2		25.7							29.7
1994					33.8		27.4	23.9						29.5
1995					35.2		27.7	26.8						30.8
1996					35.3		27.1	26.5						30.6
1997														0.0
1998														0.0
1999														0.0
2000														0.0
2001														0.0
2002														0.0
2003						35.2								35.2
2004					37.6	35.3								35.8

# Appendix M

Table M-98

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				24.2	20.8	21.1								22.0
1976				26.6		23.3								25.0
1977			41.0	30.1	25.6	24.5								28.7
1978			39.0	28.9	24.5	21.4								26.8
1979			31.7	26.6		20.8								24.0
1980		37.0	34.1	29.0	26.6	23.1								27.4
1981		44.0	36.6	29.9		27.4								30.9
1982		43.8	35.3	30.0	28.4	26.8	24.3							30.4
1983		47.4	38.0	34.6	33.1	29.0	24.6							32.6
1984		47.2	38.4	35.9	33.2	29.2	24.4							32.9
1985			39.6	35.1	34.1	30.4	24.1							32.8
1986			38.6	35.0	33.2	31.2	23.6	23.2						32.3
1987			41.3	35.4	32.9	33.0	23.6	23.1						32.9
1988			38.5	34.7	33.1	32.0	24.6	23.3						32.7
1989			37.7	34.7	33.3	31.8	24.5	23.0						31.8
1990			38.3	34.7	32.3	31.3	24.4	23.4						30.4
1991			36.2	33.0	32.7	31.0	24.6	23.2						30.6
1992			37.1	33.4	32.4	29.3	26.2	23.0						28.9
1993			37.1	33.3	33.4	29.0	26.6	23.1						29.0
1994			38.3	32.5	33.2	29.9	26.5	23.4						29.1
1995			40.1	39.1	34.3	29.1	27.5	24.1						30.0
1996			40.0	38.4	34.1	28.8	27.1	25.0						29.5
1997			40.8	36.4	33.3	28.4	28.1	24.7						29.8
1998			40.3	37.5	36.6	28.5	28.7	24.4						30.2
1999			40.3	37.2	36.5	28.6	28.7	24.8						30.4
2000			43.1	38.4	36.1	30.1	28.6	24.5						30.5
2001			43.5	39.7	38.1	48.9	28.6	24.0						31.3
2002			43.4	39.5	37.9	53.6	29.3	24.0						30.7
2003			45.4	41.3	38.0	36.9	29.1	24.1						32.1
2004			45.4	41.3	38.2	41.0	29.8	26.7	23.9					32.6

# Appendix M

Table M-99

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975							20.5							20.5
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984						27.0	27.0							27.0
1985						26.6	26.7							26.6
1986						26.7	26.3							26.3
1987						26.0	25.1	24.3						25.5
1988						26.6	26.0	23.9						25.8
1989						26.8	26.1	23.7						25.9
1990														0.0
1991								22.9						22.9
1992								22.3						22.3
1993								21.9						21.9
1994								22.0	21.6					22.0
1995								22.7	22.1					22.6
1996								22.6	21.4					22.4
1997								22.6	21.4					22.3
1998								24.2						24.2
1999								24.1						24.1
2000								24.1						24.1
2001								24.7						24.7
2002								24.7						24.7
2003								24.7						24.7
2004								25.7	25.6					25.6

# Appendix M

Table M-100

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975								12.0						12.0
1976								10.7	11.6					10.9
1977								13.7	12.7					13.6
1978								13.0	11.5					12.7
1979								13.8	13.3					13.8
1980								13.8	13.3					13.8
1981								14.5	14.1					14.3
1982								14.5	14.1					14.2
1983								14.5	14.1					14.1
1984							22.1		13.5					17.3
1985							25.3		13.5					21.1
1986							25.7	24.4	13.7					23.3
1987							25.2	23.5	13.7					22.7
1988							25.6	21.1	15.4					20.3
1989								21.3	15.4					19.7
1990								20.5	18.7					19.5
1991								21.3	19.1	14.9				18.5
1992								18.3	17.5	14.5				17.0
1993								18.8	17.5	15.6				17.4
1994								18.7	17.6	15.5				17.4
1995								21.5	17.5	16.7				18.5
1996					30.8	29.2	23.5	21.1		16.7				22.7
1997					29.8	28.0	23.1	20.8		16.7				22.9
1998						30.2	26.7	21.1			17.4	17.1		22.9
1999					30.9	30.5	27.8	22.7	20.9			17.1		22.7
2000						30.5	28.1	22.7	20.9			17.1		22.4
2001						30.4	28.3	23.4	20.5		17.6	16.5		22.5
2002						30.3	28.5	23.3	20.5		18.1	16.5		22.6
2003						30.4	28.5	24.0	20.1	19.3	18.1	17.0		22.1
2004						30.9	28.3	25.0	22.9	19.3	18.0	17.0		23.0

# Appendix M

Table M-101

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					21.3									21.3
1976					22.3	20.9	20.5							22.1
1977					27.4		22.0							27.2
1978					24.9	25.0	19.8							24.6
1979					19.7	19.1								19.5
1980					22.7	20.2	16.9							21.5
1981					27.0	26.6	19.4							26.5
1982					26.6	26.6	22.8							25.6
1983					27.6	25.6	22.8							25.5
1984					26.2	26.2	23.2							25.1
1985					31.0	27.2	24.2							27.0
1986					29.9	27.0	24.5	17.8						26.4
1987					29.8	27.7	24.3	17.9						26.6
1988					26.9	26.1	24.6	17.8						25.1
1989					26.5	27.5	23.6	20.3		13.5				23.5
1990					26.0	28.2	23.4	19.7		13.4				23.1
1991						27.5	23.9	19.8		13.1				23.8
1992					28.2	27.7	23.9	18.7		13.1				23.7
1993						28.4	23.1	18.9		13.0				23.8
1994						28.0	23.4	19.9						24.3
1995						27.4	23.4	20.6	19.8					23.3
1996						27.1	23.4	21.0	19.8					23.6
1997							24.2	20.6	19.0					20.4
1998						27.2	22.8	20.7	19.3					23.7
1999						27.2	22.5	21.4						23.2
2000						26.7	22.4	21.4	19.2	18.1				20.8
2001						27.1	23.5	21.6	19.1	18.0				21.2
2002						27.7	25.7	21.3	19.1	18.0				20.9
2003						27.8	26.1	21.4	19.4	17.9				20.9
2004						27.7	25.8	21.2	19.6	18.2	17.9			20.4

# Appendix M

Table M-102

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					21.3		20.5	12.0						18.9
1976					22.3	20.9	20.5	10.7	11.6					18.8
1977					27.4		22.0	13.7	12.7					22.9
1978					24.9	25.0	19.8	13.0	11.5					21.3
1979					19.7	19.1		13.8	13.3					19.2
1980					22.7	20.2	16.9	13.8	13.3					21.4
1981					27.0	26.6	19.4	14.5	14.1					26.2
1982					26.6	26.6	22.8	14.5	14.1					25.2
1983					27.6	25.6	22.8	14.5	14.1					25.0
1984					26.2	26.4	24.2		13.5					24.9
1985					31.0	27.0	24.8		13.5					26.5
1986					29.9	27.0	24.9	22.0	13.7					26.1
1987					29.8	27.0	24.5	21.1	13.7					25.9
1988					26.9	26.1	24.7	20.1	15.4					24.4
1989					26.5	27.5	23.9	20.7	15.4	13.5				23.2
1990					26.0	28.2	23.4	20.1	18.7	13.4				21.8
1991						27.5	23.9	21.8	19.1	14.3				22.4
1992					28.2	27.7	23.9	20.4	17.5	14.0				21.9
1993						28.4	23.1	20.0	17.5	14.7				22.1
1994						28.0	23.4	20.0	17.6	15.5				22.0
1995						27.4	23.4	21.2	17.9	16.7				21.2
1996					30.8	27.8	23.4	21.1	20.0	16.7				23.1
1997					29.8	28.0	23.1	20.8	19.4	16.7				22.6
1998						28.0	24.5	21.9	19.3		17.4	17.1		23.4
1999					30.9	28.3	24.3	22.7	20.9			17.1		23.0
2000						27.9	24.1	22.9	19.7	18.1		17.1		22.0
2001						29.1	25.6	23.2	19.8	18.0	17.6	16.5		22.3
2002						29.5	27.3	23.0	19.7	18.0	18.1	16.5		22.2
2003						29.5	27.6	23.1	19.7	18.4	18.1	17.0		21.8
2004						29.8	27.4	23.2	23.7	18.5	18.0	17.0		22.6

# Appendix M

Table M-103

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Toyota All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				24.2	20.9	21.1	20.5	12.0						21.6
1976				26.6	22.3	23.3	20.5	10.7	11.6					24.0
1977			41.0	30.1	26.5	24.5	22.0	13.7	12.7					27.7
1978			39.0	28.9	24.6	22.4	19.8	13.0	11.5					25.7
1979			31.7	26.6	19.7	20.6		13.8	13.3					22.9
1980		37.0	34.1	29.0	23.0	22.5	16.9	13.8	13.3					25.9
1981		44.0	36.6	29.9	27.0	27.2	19.4	14.5	14.1					29.9
1982		43.8	35.3	30.0	27.6	26.8	23.4	14.5	14.1					29.1
1983		47.4	38.0	34.6	29.9	27.9	23.8	14.5	14.1					30.5
1984		47.2	38.4	35.9	29.4	27.8	24.3		13.5					29.7
1985			39.6	35.1	32.6	28.3	24.6		13.5					30.0
1986			38.6	35.0	31.8	29.3	24.6	22.2	13.7					29.4
1987			41.3	35.4	30.7	31.7	24.4	22.3	13.7					30.0
1988			38.5	34.7	29.2	30.9	24.7	21.1	15.4					29.6
1989			37.7	34.7	30.8	30.9	24.2	21.2	15.4	13.5				28.9
1990			38.3	34.7	31.3	30.8	24.0	21.4	18.7	13.4				27.8
1991			36.2	33.0	32.7	30.1	24.3	22.1	19.1	14.3				27.5
1992			37.1	33.4	32.0	28.4	25.9	21.7	17.5	14.0				26.8
1993			37.1	33.3	33.4	28.5	25.9	21.6	17.5	14.7				26.7
1994			38.3	32.5	33.2	28.2	26.0	21.4	17.6	15.5				26.4
1995			40.1	39.1	34.3	27.6	27.0	22.0	17.9	16.7				27.0
1996			40.0	38.4	34.0	27.9	26.5	21.9	20.0	16.7				27.4
1997			40.8	36.4	33.2	28.0	27.5	21.3	19.4	16.7				27.1
1998			40.3	37.5	36.6	28.0	27.9	22.4	19.3		17.4	17.1		27.4
1999			40.3	37.2	36.5	28.3	28.1	22.9	20.9			17.1		27.1
2000			43.1	38.4	36.1	28.2	28.1	23.0	19.7	18.1		17.1		26.2
2001			43.5	39.7	38.1	32.1	28.0	23.3	19.8	18.0	17.6	16.5		26.5
2002			43.4	39.5	37.9	33.3	29.1	23.1	19.7	18.0	18.1	16.5		26.0
2003			45.4	41.3	38.0	34.1	28.9	23.2	19.7	18.4	18.1	17.0		27.1
2004			45.4	41.3	38.2	36.4	29.5	24.2	23.7	18.5	18.0	17.0		27.0



# Appendix M

Table M-104

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975		31.4												31.4
1976		32.9	32.5											32.9
1977		36.4	35.6											36.2
1978		33.5	34.5											34.0
1979		30.9		27.9										29.0
1980		33.6		27.1										28.9
1981		36.1	33.6	28.5										30.6
1982		40.5	35.9	30.8										33.2
1983		44.7	36.5	33.6										35.2
1984		44.0	36.0	33.5										35.1
1985		44.4	36.4	32.1	30.4									33.7
1986		47.6	38.0	32.2	31.8		24.7							33.5
1987		52.0	38.1	33.3	31.8		24.3							32.8
1988		60.4	39.8	35.8	31.9	29.7	23.6							31.8
1989		60.3	39.6	34.9	32.6	29.2	23.4							31.2
1990			44.4	37.3	31.5	28.9	23.4							30.3
1991			44.7	37.3	32.9	28.8	24.3							30.4
1992			52.8	41.4	36.9	29.8	26.1	24.2						31.0
1993			52.3	41.5	36.5	30.1	27.1	24.0						32.2
1994			50.5	42.9	35.9	30.5	30.0	24.0						32.1
1995			55.6	41.4	36.6	30.6	28.9	24.0						32.9
1996				41.3	37.0	30.8	28.1	24.3						31.9
1997				41.8	36.9	30.7	28.0	24.3						32.2
1998				41.3	37.2	32.0	29.1	24.3						32.0
1999				40.9	36.2	32.1	28.6	23.5						30.9
2000		76.4		40.7	36.0	29.9	28.5	23.2						31.0
2001		75.6	66.4		39.3	29.3	28.7	26.0						32.2
2002		75.3	66.4		39.3	31.4	28.9	25.5						32.0
2003		75.1	66.4		39.1	38.4	30.2	26.2						32.6
2004		73.8	66.4		38.7	38.5	30.6	26.5						32.4

# Appendix M

Table M-105

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976			29.4											29.4
1977			31.9											31.9
1978			31.5											31.5
1979			29.9											29.9
1980			32.5											32.5
1981			33.7											33.7
1982			36.7											36.7
1983			36.7											36.7
1984			36.1											36.1
1985			36.1	31.6										34.8
1986			37.7	31.9										34.6
1987			37.3	32.1										34.2
1988				37.0	30.6									34.2
1989				35.6	30.0									34.7
1990				38.5	33.7	29.9								35.2
1991				38.4	33.4	29.7	26.6							28.7
1992							27.1							27.1
1993							27.6							27.6
1994							29.0							29.0
1995							29.0							29.0
1996							28.5							28.5
1997							27.2							27.2
1998														0.0
1999														0.0
2000														0.0
2001														0.0
2002														0.0
2003														0.0
2004														0.0

# Appendix M

Table M-106

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975		31.4												31.4
1976		32.9	29.5											32.6
1977		36.4	33.9											35.5
1978		33.5	33.9											33.7
1979		30.9	29.9	27.9										29.0
1980		33.6	32.5	27.1										29.2
1981		36.1	33.6	28.5										30.8
1982		40.5	36.1	30.8										33.4
1983		44.7	36.6	33.6										35.3
1984		44.0	36.0	33.5										35.2
1985		44.4	36.4	32.1	30.4									33.8
1986		47.6	37.9	32.2	31.8		24.7							33.6
1987		52.0	38.1	33.1	31.8		24.3							32.8
1988		60.4	39.8	35.9	31.9	29.7	23.6							31.8
1989		60.3	39.6	34.9	32.6	29.2	23.4							31.3
1990			44.4	37.3	31.7	28.9	23.4							30.4
1991			44.7	37.3	32.9	28.8	24.7							30.3
1992			52.8	41.4	36.9	29.8	26.2	24.2						30.9
1993			52.3	41.5	36.5	30.1	27.1	24.0						32.2
1994			50.5	42.9	35.9	30.5	29.9	24.0						32.1
1995			55.6	41.4	36.6	30.6	28.9	24.0						32.8
1996				41.3	37.0	30.8	28.2	24.3						31.8
1997				41.8	36.9	30.7	28.0	24.3						32.1
1998				41.3	37.2	32.0	29.1	24.3						32.0
1999				40.9	36.2	32.1	28.6	23.5						30.9
2000		76.4		40.7	36.0	29.9	28.5	23.2						31.0
2001		75.6	66.4		39.3	29.3	28.7	26.0						32.2
2002		75.3	66.4		39.3	31.4	28.9	25.5						32.0
2003		75.1	66.4		39.1	38.4	30.2	26.2						32.6
2004		73.8	66.4		38.7	38.5	30.6	26.5						32.4

# Appendix M

Table M-107

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987														0.0
1988														0.0
1989														0.0
1990														0.0
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995							25.5							25.5
1996							28.5							28.5
1997							24.9							24.9
1998							27.0							27.0
1999									24.1					24.1
2000									23.9					23.9
2001									24.0					24.0
2002									24.2					24.2
2003									24.1					24.1
2004									24.2					24.2

# Appendix M

Table M-108

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987														0.0
1988														0.0
1989														0.0
1990														0.0
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995														0.0
1996								19.9	19.2					19.4
1997						26.9	19.4	19.2						24.7
1998						27.0	21.1	19.4						25.4
1999						27.2	21.1	19.4						25.7
2000						27.2	21.2	20.5						26.0
2001						27.2	21.7	22.2						25.3
2002						28.2	21.7	22.4						26.3
2003								22.3						22.3
2004						27.7	26.4	22.2						24.7

# Appendix M

Table M-109

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987														0.0
1988														0.0
1989														0.0
1990														0.0
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995														0.0
1996														0.0
1997														0.0
1998														0.0
1999														0.0
2000														0.0
2001														0.0
2002														0.0
2003														0.0
2004														0.0

# Appendix M

Table M-110

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987														0.0
1988														0.0
1989														0.0
1990														0.0
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995							25.5							25.5
1996							28.5	19.9	19.2					22.5
1997							26.4	19.4	19.2					24.7
1998							27.0	21.1	19.4					25.5
1999							27.2	21.1	24.0					25.2
2000							27.2	21.2	23.6					25.0
2001							27.2	21.7	23.5					24.7
2002							28.2	21.7	23.7					25.3
2003									23.1					23.1
2004							27.7	26.4	23.2					24.6

# Appendix M

Table M-111

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Honda All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975		31.4												31.4
1976		32.9	29.5											32.6
1977		36.4	33.9											35.5
1978		33.5	33.9											33.7
1979		30.9	29.9	27.9										29.0
1980		33.6	32.5	27.1										29.2
1981		36.1	33.6	28.5										30.8
1982		40.5	36.1	30.8										33.4
1983		44.7	36.6	33.6										35.3
1984		44.0	36.0	33.5										35.2
1985		44.4	36.4	32.1	30.4									33.8
1986		47.6	37.9	32.2	31.8		24.7							33.6
1987		52.0	38.1	33.1	31.8		24.3							32.8
1988		60.4	39.8	35.9	31.9	29.7	23.6							31.8
1989		60.3	39.6	34.9	32.6	29.2	23.4							31.3
1990			44.4	37.3	31.7	28.9	23.4							30.4
1991			44.7	37.3	32.9	28.8	24.7							30.3
1992			52.8	41.4	36.9	29.8	26.2	24.2						30.9
1993			52.3	41.5	36.5	30.1	27.1	24.0						32.2
1994			50.5	42.9	35.9	30.5	29.9	24.0						32.1
1995			55.6	41.4	36.6	30.6	28.4	24.0						32.4
1996				41.3	37.0	30.8	28.2	23.1	19.2					31.1
1997				41.8	36.9	30.7	27.4	23.2	19.2					31.0
1998				41.3	37.2	32.0	28.6	22.6	19.4					30.9
1999				40.9	36.2	32.1	28.3	21.8	24.0					29.6
2000		76.4		40.7	36.0	29.9	28.3	22.4	23.6					29.4
2001		75.6	66.4		39.3	29.3	28.4	24.9	23.5					29.9
2002		75.3	66.4		39.3	31.4	28.8	25.3	23.7					29.8
2003		75.1	66.4		39.1	38.4	30.2	26.2	23.1					29.6
2004		73.8	66.4		38.7	38.5	29.8	26.5	23.2					28.6



# Appendix M

Table M-112

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			27.4	25.4	19.5	21.6								26.4
1976			28.5	26.8	20.7	21.0								27.5
1977			30.5	28.4	17.8	20.5								28.8
1978			30.4	25.8		19.5	14.1							27.2
1979			31.5	27.9		19.7	13.3							28.6
1980			33.6	28.3	22.9	22.2	19.4							30.8
1981			38.9	31.4	25.4	23.0	18.5							34.1
1982			38.3	33.9	28.0	22.1	18.9							32.9
1983			33.6	32.6	29.5	24.0	20.0							30.0
1984			35.4	30.8	25.0	23.5	21.2							28.5
1985				33.8	25.9	22.8	22.0							30.0
1986				32.9	26.0	22.8	23.4	18.4						29.6
1987				31.8	27.8	23.4	22.4	18.1						29.0
1988				31.3	30.6	25.7	23.3							30.2
1989				31.1	31.4	25.3	23.5							30.3
1990				31.8	30.9	27.0	24.8	18.5						28.9
1991				32.6	31.8	26.3	25.0	21.9						29.8
1992				32.7	31.3	26.4	25.1	22.4						29.1
1993				32.7	30.7	27.5	23.8	22.5						27.0
1994					31.0	29.1	24.2	23.3						28.2
1995					31.7	29.9	24.3	23.4						28.8
1996					30.1	29.0	26.2	24.1						28.3
1997					31.1	29.6	26.4	23.9						28.8
1998					31.0	30.2	27.1	23.3			15.0	14.9		28.8
1999						30.1	26.7	23.1		16.0	14.9			28.4
2000						30.9	26.7	23.0	22.8		15.2	15.0		28.8
2001						31.2	26.8	22.9	23.2			15.0	15.2	28.5
2002						31.6	29.3	24.2	20.6		16.1	14.5	15.2	29.1
2003						32.1	29.8	25.3	21.9			13.9	15.2	29.4
2004						31.7	29.4	25.2	23.1		20.6	13.8		29.1

# Appendix M

Table M-113

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				27.2										27.2
1976				27.9										27.9
1977				28.7										28.7
1978				25.7										25.7
1979				25.0										25.0
1980				40.1										40.1
1981				40.6										40.6
1982					29.8									29.8
1983					33.8	23.2								30.6
1984					42.0	23.0	22.4							24.8
1985					29.0	22.1	22.7							25.9
1986						22.7	22.9							22.8
1987				32.6		22.8	23.3							26.7
1988				31.9		22.7	23.4							31.0
1989				31.7			23.6	22.9						29.3
1990				31.7		27.8	27.1	23.1						28.3
1991						27.8	27.1	23.2						26.9
1992						28.1	27.1	22.8						26.7
1993							24.0	22.9						23.7
1994							23.9	23.5						23.6
1995							24.0	23.4						23.7
1996							30.8	24.1						27.6
1997							25.1	24.2						24.6
1998							27.7	24.1						25.9
1999							28.5	23.4						26.5
2000							25.7	22.9						25.0
2001							27.7	23.1	20.3					24.2
2002							29.9	25.1	18.7					27.7
2003							30.1	25.4	19.8					28.1
2004							30.8	25.2	21.5					27.7

# Appendix M

Table M-114

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			27.4	26.1	19.5	21.6								26.5
1976			28.5	27.0	20.7	21.0								27.5
1977			30.5	28.5	17.8	20.5								28.8
1978			30.4	25.8		19.5	14.1							27.2
1979			31.5	27.8		19.7	13.3							28.6
1980			33.6	31.0	22.9	22.2	19.4							31.2
1981			38.9	32.3	25.4	23.0	18.5							34.2
1982			38.3	33.9	28.5	22.1	18.9							32.8
1983			33.6	32.6	30.3	24.0	20.0							30.1
1984			35.4	30.8	26.0	23.5	21.4							28.4
1985				33.8	26.4	22.8	22.1							29.9
1986				32.9	26.0	22.8	23.3	18.4						29.4
1987				31.8	27.8	23.3	22.4	18.1						28.9
1988				31.4	30.6	25.5	23.3							30.3
1989				31.1	31.4	25.3	23.5	22.9						30.2
1990				31.8	30.9	27.0	25.1	18.8						28.9
1991				32.6	31.8	26.5	25.2	22.1						29.7
1992				32.7	31.3	26.6	25.2	22.5						29.0
1993				32.7	30.7	27.5	23.8	22.6						26.8
1994					31.0	29.1	24.2	23.4						28.1
1995					31.7	29.9	24.2	23.4						28.6
1996					30.1	29.0	26.7	24.1						28.2
1997					31.1	29.6	26.3	24.0						28.6
1998					31.0	30.2	27.1	23.4			15.0	14.9		28.6
1999						30.1	26.9	23.2		16.0	14.9			28.3
2000						30.9	26.5	23.0	22.8		15.2	15.0		28.5
2001						31.2	26.9	23.0	20.9			15.0	15.2	28.1
2002						31.6	29.4	24.4	20.3		16.1	14.5	15.2	29.0
2003						32.1	29.8	25.3	21.5			13.9	15.2	29.3
2004						31.7	29.6	25.2	22.3		20.6	13.8		29.0

# Appendix M

Table M-115

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975						21.2	20.7							20.7
1976							19.9							19.9
1977							22.2							22.2
1978							20.0							20.0
1979							18.7							18.7
1980							19.2	18.4						19.0
1981							18.8	18.0						18.5
1982							21.8	21.4						21.7
1983							19.5	18.6						19.3
1984							20.9	20.1						20.7
1985							21.5	20.9						21.3
1986							20.3	18.4						19.2
1987							20.3	18.3						18.9
1988							20.3	19.7						19.9
1989								21.1	18.6					20.8
1990								20.9	18.5					20.8
1991								21.0	18.5					20.9
1992														0.0
1993								21.3	20.3					21.0
1994								21.0	19.4					20.1
1995										19.6				19.6
1996														0.0
1997									20.1		18.5			18.5
1998														0.0
1999									19.5		18.5			19.1
2000									19.7		18.5			19.0
2001									21.0		20.0			20.7
2002									21.0		20.0			20.9
2003									21.1		20.0			20.6
2004														0.0

# Appendix M

Table M-116

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987														0.0
1988														0.0
1989														0.0
1990														0.0
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995														0.0
1996														0.0
1997														0.0
1998														0.0
1999														0.0
2000														0.0
2001														0.0
2002														0.0
2003														0.0
2004											19.2			19.2

# Appendix M

Table M-117

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980			32.0	23.7										31.3
1981			41.5	28.5										36.9
1982			43.5	29.9										39.2
1983			43.9	30.3			20.9							32.8
1984														0.0
1985														0.0
1986														0.0
1987														0.0
1988														0.0
1989														0.0
1990														0.0
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995														0.0
1996														0.0
1997														0.0
1998														0.0
1999														0.0
2000														0.0
2001														0.0
2002														0.0
2003														0.0
2004														0.0

# Appendix M

Table M-118

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975						21.2	20.7							20.7
1976							19.9							19.9
1977							22.2							22.2
1978							20.0							20.0
1979							18.7							18.7
1980			32.0	23.7			19.2	18.4						25.2
1981			41.5	28.5			18.8	18.0						29.5
1982			43.5	29.9			21.8	21.4						27.8
1983			43.9	30.3			19.5	18.6						20.3
1984							20.9	20.1						20.7
1985							21.5	20.9						21.3
1986							20.3	18.4						19.2
1987							20.3	18.3						18.9
1988							20.3	19.7						19.9
1989								21.1	18.6					20.8
1990								20.9	18.5					20.8
1991								21.0	18.5					20.9
1992														0.0
1993								21.3	20.3					21.0
1994								21.0	19.4					20.1
1995										19.6				19.6
1996														0.0
1997									20.1		18.5			18.5
1998														0.0
1999									19.5		18.5			19.1
2000									19.7		18.5			19.0
2001									21.0		20.0			20.7
2002									21.0		20.0			20.9
2003									21.1		20.0			20.6
2004											19.2			19.2

# Appendix M

Table M-119

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 VW All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			27.4	26.1	19.5	21.6	20.7							26.5
1976			28.5	27.0	20.7	21.0	19.9							27.4
1977			30.5	28.5	17.8	20.5	22.2							28.8
1978			30.4	25.8		19.5	17.8							27.1
1979			31.5	27.8		19.7	17.7							28.0
1980			33.5	30.8	22.9	22.2	19.3	18.4						30.5
1981			39.1	31.8	25.4	23.0	18.7	18.0						33.5
1982			38.8	33.7	28.5	22.1	21.2	21.4						32.2
1983			33.7	32.5	30.3	24.0	19.6	18.6						28.7
1984			35.4	30.8	26.0	23.5	21.1	20.1						27.7
1985				33.8	26.4	22.8	21.8	20.9						29.0
1986				32.9	26.0	22.8	22.3	18.4						28.9
1987				31.8	27.8	23.3	21.9	18.2						28.2
1988				31.4	30.6	25.5	22.4	19.7						30.0
1989				31.1	31.4	25.3	23.5	21.2	18.6					29.9
1990				31.8	30.9	27.0	25.1	20.2	18.5					28.3
1991				32.6	31.8	26.5	25.2	21.3	18.5					29.2
1992				32.7	31.3	26.6	25.2	22.5						29.0
1993				32.7	30.7	27.5	23.8	21.6	20.3					25.8
1994					31.0	29.1	24.2	23.2	19.4					28.1
1995					31.7	29.9	24.2	23.4		19.6				28.4
1996					30.1	29.0	26.7	24.1						28.2
1997					31.1	29.6	26.3	24.0	20.1		18.5			28.5
1998					31.0	30.2	27.1	23.4			15.0	14.9		28.6
1999						30.1	26.9	23.2	19.5	16.0	18.0			28.2
2000						30.9	26.5	23.0	20.8		18.5	15.0		28.4
2001						31.2	26.9	23.0	20.9		20.0	15.0	15.2	28.0
2002						31.6	29.4	24.4	20.6		19.6	14.5	15.2	28.8
2003						32.1	29.8	25.3	21.4		20.0	13.9	15.2	29.2
2004						31.7	29.6	25.2	22.3		19.3	13.8		27.7



# Appendix M

Table M-120

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			32.1	27.4	25.5	19.3								25.2
1976			32.5	29.6	26.2	20.0								26.8
1977			33.2	28.3	26.1	19.9								27.2
1978			31.4	27.4	26.1	20.3								27.0
1979			30.5	26.5	24.9	21.1								26.6
1980			33.2	32.6	31.1	23.1								31.1
1981			34.0	31.3	30.9	23.8	30.5							30.4
1982		41.3	34.9	33.8		25.1	27.7							30.5
1983		46.2	37.5	32.6		26.0	24.6							32.5
1984			38.4	32.1	32.5	26.6	23.3							31.6
1985			36.4	31.2	28.5	27.9	22.9							29.4
1986			37.3	33.8	28.3	28.1	24.1							30.2
1987			37.5	34.1	30.6	27.6	24.2							29.4
1988			36.6	34.5	31.4	27.9	23.9							30.7
1989			36.0	34.6	32.3	26.7	25.2							30.2
1990				35.5	33.1	26.9	25.0	22.2						28.3
1991				37.1	35.5	27.9	25.1	22.2	18.9					29.0
1992				37.0	35.8	27.9	25.3	22.0	18.9					29.9
1993				37.4	34.4	28.6	25.7	23.1	19.4					29.1
1994				37.5	34.7	28.7	25.1	23.0	19.8					29.8
1995				39.6	36.1	28.4	27.2	23.1	20.2					29.2
1996				38.9	36.4	28.5	27.4	23.0						30.2
1997				39.0	36.0	28.3	27.3	23.5						29.6
1998				38.4	35.9	30.7	28.6	23.1						30.2
1999					35.8	30.8	28.5	23.0						29.6
2000					34.1	30.8	27.1	23.1						28.0
2001					34.3	30.7	26.7	22.9						28.3
2002					35.5	33.6	27.7	23.3						28.9
2003					36.6	34.1	27.2	23.0						27.8
2004					36.1	33.6	26.3	26.1						28.3

# Appendix M

Table M-121

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975						20.9								20.9
1976			33.4		26.3	24.9								27.4
1977			33.8		26.1	22.5								27.1
1978			32.6		26.0	18.8								25.5
1979			30.7	26.8	25.4	21.9								27.9
1980			32.4		32.0	23.3								32.2
1981			34.2	31.1	30.4	23.8	30.5							31.4
1982			35.1	32.8		23.4	32.0							32.0
1983			36.9	44.2		27.6	26.7							34.6
1984			37.9				25.8							35.1
1985			35.7				21.9							30.0
1986			36.1			27.4	24.6							28.2
1987				34.1	30.5	26.9	24.2							27.8
1988				34.2	31.6	27.3	23.8							28.0
1989				35.8	32.6	29.5								32.3
1990				36.4	32.7									33.5
1991														0.0
1992														0.0
1993														0.0
1994														0.0
1995														0.0
1996														0.0
1997														0.0
1998														0.0
1999														0.0
2000														0.0
2001														0.0
2002														0.0
2003														0.0
2004														0.0

# Appendix M

Table M-122

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			32.1	27.4	25.5	19.5								25.0
1976			32.6	29.6	26.2	20.7								26.9
1977			33.3	28.3	26.1	20.3								27.2
1978			31.5	27.4	26.1	20.1								26.8
1979			30.6	26.7	25.1	21.1								26.8
1980			33.1	32.6	31.3	23.1								31.2
1981			34.0	31.2	30.8	23.8	30.5							30.5
1982		41.3	34.9	33.7		25.0	28.7							30.7
1983		46.2	37.4	32.6		26.0	25.5							32.7
1984			38.3	32.1	32.5	26.6	23.6							31.9
1985			36.3	31.2	28.5	27.9	22.8							29.5
1986			37.2	33.8	28.3	27.8	24.1							29.9
1987			37.5	34.1	30.6	27.5	24.2							29.3
1988			36.6	34.5	31.4	27.8	23.9							30.6
1989			36.0	34.6	32.3	26.7	25.2							30.2
1990				35.5	33.0	26.9	25.0	22.2						28.4
1991				37.1	35.5	27.9	25.1	22.2	18.9					29.0
1992				37.0	35.8	27.9	25.3	22.0	18.9					29.9
1993				37.4	34.4	28.6	25.7	23.1	19.4					29.1
1994				37.5	34.7	28.7	25.1	23.0	19.8					29.8
1995				39.6	36.1	28.4	27.2	23.1	20.2					29.2
1996				38.9	36.4	28.5	27.4	23.0						30.2
1997				39.0	36.0	28.3	27.3	23.5						29.6
1998				38.4	35.9	30.7	28.6	23.1						30.2
1999					35.8	30.8	28.5	23.0						29.6
2000					34.1	30.8	27.1	23.1						28.0
2001					34.3	30.7	26.7	22.9						28.3
2002					35.5	33.6	27.7	23.3						28.9
2003					36.6	34.1	27.2	23.0						27.8
2004					36.1	33.6	26.3	26.1						28.3

# Appendix M

Table M-123

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987							22.4							22.4
1988							22.5	21.8						22.3
1989							22.5	21.8						22.2
1990						27.5	25.3	21.3						25.4
1991						27.6	25.6							26.0
1992							25.6							25.6
1993								21.8						21.8
1994								22.7						22.7
1995								23.0						23.0
1996								22.9						22.9
1997								22.6						22.6
1998								22.7						22.7
1999								23.1						23.1
2000								22.8						22.8
2001								22.6						22.6
2002								22.6						22.6
2003														0.0
2004									24.7					24.7

# Appendix M

Table M-124

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan SUVs

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975														0.0
1976														0.0
1977														0.0
1978														0.0
1979														0.0
1980														0.0
1981														0.0
1982														0.0
1983														0.0
1984														0.0
1985														0.0
1986														0.0
1987								18.7						18.7
1988								18.5						18.5
1989								19.0						19.0
1990								19.5						19.5
1991								19.5						19.5
1992								19.6						19.6
1993								20.3	18.9					19.4
1994								19.0	18.4					18.6
1995								19.4	18.6					19.1
1996								19.8						19.8
1997								20.4	19.4					19.6
1998								20.3	19.3					19.5
1999								20.2	19.3					19.5
2000								20.1	19.2					19.6
2001								20.3	19.5					19.8
2002								20.5	19.4					19.9
2003								21.3	20.0					20.5
2004								23.3	20.5		18.1	17.4		21.1

# Appendix M

Table M-125

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					23.6									23.6
1976					24.5									24.5
1977					25.0									25.0
1978					25.9		20.6							25.6
1979					23.7		15.5							23.2
1980					26.6	23.1	16.3							25.1
1981					29.0	27.2	22.1	17.7						27.7
1982					28.3	27.9	23.9	17.4						27.8
1983					30.2	27.9	24.0	17.5						27.4
1984					29.2	28.4	23.0	17.6						26.2
1985						26.9	22.9	17.5						25.7
1986						26.3	22.8	20.8						24.7
1987						26.9	22.1	19.1						25.1
1988						26.7	23.0	19.8						24.7
1989						27.0	22.5	19.8						24.8
1990						28.8	24.3	21.2						27.1
1991						28.6	24.9	21.6						26.9
1992						28.7	25.0	21.3						26.7
1993						28.6	25.2	21.1						26.4
1994						28.3	25.6	21.2						25.6
1995						27.5	25.5	20.4	19.0					24.9
1996						27.4	24.8	21.2						25.2
1997						26.6	25.1	21.2						24.9
1998						28.8	26.6	22.4						25.5
1999							25.9	20.4	19.6					23.3
2000							26.1	19.7	19.4					21.8
2001							26.3	20.2	19.6					22.2
2002							26.1	20.3	19.6					22.0
2003							26.3	21.0	20.5					22.8
2004							26.5	21.2	20.0		18.1	17.4		19.7

# Appendix M

Table M-126

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					23.6									23.6
1976					24.5									24.5
1977					25.0									25.0
1978					25.9		20.6							25.6
1979					23.7		15.5							23.2
1980					26.6	23.1	16.3							25.1
1981					29.0	27.2	22.1	17.7						27.7
1982					28.3	27.9	23.9	17.4						27.8
1983					30.2	27.9	24.0	17.5						27.4
1984					29.2	28.4	23.0	17.6						26.2
1985						26.9	22.9	17.5						25.7
1986						26.3	22.8	20.8						24.7
1987						26.9	22.2	18.8						23.5
1988						26.7	22.8	19.0						22.7
1989						27.0	22.5	19.3						23.7
1990						28.8	24.7	20.0						25.3
1991						28.6	24.9	20.0						24.8
1992						28.7	25.0	19.9						24.0
1993						28.6	25.2	21.1	18.9					23.7
1994						28.3	25.6	21.5	18.4					22.9
1995						27.5	25.5	20.9	18.6					22.4
1996						27.4	24.8	21.2						22.9
1997						26.6	25.1	21.7	19.4					22.3
1998						28.8	26.6	22.0	19.3					22.3
1999							25.9	21.6	19.3					21.2
2000							26.1	20.7	19.3					20.8
2001							26.3	20.7	19.5					20.7
2002							26.1	20.8	19.4					20.7
2003							26.3	21.2	20.1					21.4
2004							26.5	22.7	21.9		18.1	17.4		21.1

# Appendix M

Table M-127

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 Nissan All

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975			32.1	27.4	24.1	19.5								24.7
1976			32.6	29.6	25.2	20.7								26.3
1977			33.3	28.3	25.5	20.3								26.7
1978			31.5	27.4	26.0	20.1	20.6							26.5
1979			30.6	26.7	24.1	21.1	15.5							26.2
1980			33.1	32.6	28.9	23.1	16.3							29.8
1981			34.0	31.2	30.1	24.7	25.2	17.7						30.0
1982		41.3	34.9	33.7	28.3	25.6	27.1	17.4						30.0
1983		46.2	37.4	32.6	30.2	26.5	24.7	17.5						31.7
1984			38.3	32.1	32.1	27.4	23.3	17.6						30.5
1985			36.3	31.2	28.5	27.1	22.8	17.5						28.4
1986			37.2	33.8	28.3	26.7	23.7	20.8						27.5
1987			37.5	34.1	30.6	27.2	23.9	18.8						27.8
1988			36.6	34.5	31.4	27.2	23.7	19.0						28.1
1989			36.0	34.6	32.3	26.8	24.7	19.3						28.4
1990				35.5	33.0	27.7	24.9	20.6						27.5
1991				37.1	35.5	28.2	25.1	20.6	18.9					27.6
1992				37.0	35.8	28.2	25.3	20.4	18.9					28.2
1993				37.4	34.4	28.6	25.6	21.7	18.9					27.1
1994				37.5	34.7	28.5	25.2	21.9	18.5					27.3
1995				39.6	36.1	28.1	26.9	21.2	18.6					26.1
1996				38.9	36.4	28.2	27.0	21.3						27.7
1997				39.0	36.0	27.9	26.8	22.0	19.4					26.6
1998				38.4	35.9	30.4	28.2	22.1	19.3					27.1
1999					35.8	30.8	28.3	21.7	19.3					26.5
2000					34.1	30.8	26.9	20.7	19.3					24.3
2001					34.3	30.7	26.6	20.7	19.5					24.1
2002					35.5	33.6	27.5	20.9	19.4					25.0
2003					36.6	34.1	27.1	21.5	20.1					25.0
2004					36.1	33.6	26.3	24.2	21.9	18.1	17.4			24.1



# Appendix M

Table M-128

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Cars

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975		31.4	28.3	23.9	21.7	21.4	18.1	15.6	14.3	12.9	12.3			15.8
1976		32.6	29.6	26.1	24.3	23.4	19.4	17.6	15.7	14.6	13.2			17.5
1977		36.0	32.1	29.2	24.7	23.0	20.3	17.9	16.5	14.0	12.7			18.4
1978		34.9	31.9	28.0	24.9	22.4	20.2	18.0	16.3	14.4	12.7			20.0
1979		32.0	31.5	27.9	24.0	22.0	20.2	17.7	16.6	14.4	11.0			20.3
1980		33.0	32.3	27.9	25.9	23.6	20.7	18.8	18.9	12.5	10.7			23.5
1981		38.4	34.5	29.2	27.8	24.4	22.3	20.3	20.5	11.7	10.5			25.1
1982		40.3	35.6	31.1	28.8	25.7	22.4	20.6	25.5	11.2	10.1			26.1
1983		43.6	36.1	31.9	30.3	25.8	22.7	20.3	20.3	11.5	10.9			25.7
1984		44.3	37.1	32.6	30.1	26.4	22.8	20.6	20.8	11.2	11.0			26.3
1985	57.4	44.4	37.7	32.5	30.6	27.1	23.3	21.8	23.2	10.9	11.0	10.1		26.9
1986	55.9	36.6	38.5	33.8	30.7	27.5	24.3	22.1	16.8	10.7	11.0	10.1		28.0
1987	56.8	40.0	39.0	33.4	30.8	27.8	24.5	21.7	10.9	11.4	10.9	10.4		28.2
1988	51.6	43.6	38.9	34.2	31.5	28.4	25.3	22.2	22.4	12.3	12.2	11.8		28.6
1989	59.4	43.5	38.7	34.3	31.8	28.4	25.1	23.0	21.2	12.4	12.5			28.2
1990	65.3	47.5	39.6	35.1	31.9	28.5	25.5	23.0	19.4	10.9	13.1			27.8
1991	65.3	47.1	38.1	35.8	32.4	28.1	25.3	23.3	19.9		13.2			28.0
1992	65.3	47.3	39.7	35.9	32.5	28.4	25.5	23.4	21.9	17.3	14.1			27.6
1993	65.3	48.6	38.7	36.5	32.8	28.7	26.0	23.6	22.0	18.9	15.6	17.6		28.1
1994	65.8	48.9	39.6	36.0	33.5	29.1	26.1	23.5	22.3	20.0	17.7	13.9	13.6	28.0
1995		53.7	40.4	37.5	33.9	29.7	26.4	23.5	22.4	19.8	18.2	13.9	13.6	28.3
1996		52.3	38.9	37.4	33.9	30.0	26.5	23.8	22.9	19.9	17.8	14.9		28.3
1997		54.4	39.3	37.0	34.0	30.0	26.7	23.8	22.2	20.2	18.1	14.9	14.9	28.4
1998		53.6	39.0	37.4	34.6	30.1	27.1	23.8	22.0	20.2	17.0	14.9	13.8	28.5
1999		50.3	38.6	35.9	34.6	30.1	27.2	24.1	22.1	19.7	14.9	19.3		28.2
2000		61.6	39.6	36.7	34.3	30.6	27.1	24.3	21.9	18.3	18.1	15.0	15.2	28.2
2001		75.6	39.3	36.2	36.0	31.6	27.2	24.5	22.2	18.2	16.1	17.6	15.2	28.5
2002		75.3	51.5	37.3	36.4	31.4	27.8	24.6	22.3	19.1	16.1	17.6	15.2	28.8
2003		75.1	60.1	40.9	36.8	33.1	28.0	24.9	22.8		19.8	16.6	15.2	29.1
2004		73.8	56.4	41.3	36.8	32.9	28.0	25.3	22.7	18.7	19.1	16.3	16.2	28.8

# Appendix M

Table M-129

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975				25.0	21.9	21.5	18.9	14.5	13.9	12.6	11.9			16.1
1976			31.2	26.8	25.4	23.9	19.0	18.2	14.5	14.7	13.5			17.3
1977			32.2	29.7	25.7	23.9	19.5	17.7	16.5	14.5	12.4			18.0
1978			32.0	27.8	24.0	23.1	19.7	18.1	16.2	15.3	13.5			19.2
1979			30.3	27.9	25.3	23.2	20.1	18.3	16.0					19.7
1980			32.6	29.2	32.0	23.8	21.2	19.3	19.2					23.6
1981			34.0	30.2	27.1	24.2	21.3	20.5	20.2					25.6
1982			35.9	31.4	28.7	25.6	22.6	21.0	19.0					25.3
1983			37.2	33.1	29.6	25.8	23.9	20.1	19.5					27.2
1984			37.2	33.3	30.0	27.4	23.8	20.3	19.9					26.4
1985			35.9	34.4	30.0	27.5	24.1	21.0	21.0					27.5
1986			36.9	33.0	29.9	27.9	25.2	21.6	22.0					27.1
1987			37.3	33.5	30.9	29.0	25.1	22.0	22.3					27.2
1988				33.8	31.6	28.9	25.5	22.2	22.9					27.6
1989				34.5	31.5	29.3	25.2	22.5	22.4					26.9
1990				36.6	32.1	29.6	25.4	22.3	22.8					26.7
1991				38.4	33.8	29.8	26.1	22.8	22.8					28.0
1992				35.5	34.0	29.5	26.5	22.2	22.7					27.5
1993				35.9	34.2	29.1	26.5	24.2	22.5					29.6
1994				35.8	35.2	29.1	26.5	23.9	22.9					29.4
1995				37.8	34.6	28.5	26.7	24.9	22.8					29.6
1996					33.8	29.2	26.9	25.1	23.2					27.7
1997				38.0	34.2	29.9	27.0	24.9						29.0
1998				33.8	33.9	29.7	27.1	24.6						28.3
1999				33.9	34.5	29.2	27.2	24.9						27.7
2000				33.7	34.4	31.1	27.3	24.7						27.7
2001					34.0	32.4	27.3	25.4	20.3					26.9
2002					33.8	31.6	26.3	26.2	18.7					26.7
2003						34.7	27.0	26.1	19.8					28.8
2004					37.6	34.5	28.0	26.0	22.2	21.8				28.5

# Appendix M

Table M-130

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Cars and Wagons

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975		31.4	28.3	24.4	21.7	21.4	18.2	15.6	14.3	12.9	12.2			15.8
1976		32.6	29.6	26.2	24.5	23.5	19.4	17.7	15.7	14.6	13.3			17.5
1977		36.0	32.1	29.3	24.8	23.2	20.2	17.9	16.5	14.1	12.6			18.3
1978		34.9	31.9	27.9	24.8	22.5	20.2	18.0	16.3	14.6	12.8			19.9
1979		32.0	31.4	27.9	24.0	22.1	20.2	17.8	16.5	14.4	11.0			20.3
1980		33.0	32.4	28.0	26.1	23.6	20.7	18.8	19.0	12.5	10.7			23.5
1981		38.4	34.4	29.4	27.7	24.4	22.2	20.3	20.4	11.7	10.5			25.1
1982		40.3	35.6	31.2	28.8	25.7	22.4	20.6	21.0	11.2	10.1			26.0
1983		43.6	36.2	32.2	30.2	25.8	22.8	20.3	19.9	11.5	10.9			25.9
1984		44.3	37.1	32.7	30.1	26.4	22.9	20.6	20.2	11.2	11.0			26.3
1985	57.4	44.4	37.5	32.8	30.6	27.1	23.4	21.7	21.0	10.9	11.0	10.1		27.0
1986	55.9	36.6	38.5	33.7	30.6	27.5	24.4	22.1	21.5	10.7	11.0	10.1		27.9
1987	56.8	40.0	39.0	33.4	30.8	27.9	24.6	21.7	22.3	11.4	10.9	10.4		28.1
1988	51.6	43.6	38.9	34.1	31.5	28.4	25.4	22.2	22.6	12.3	12.2	11.8		28.6
1989	59.4	43.5	38.7	34.4	31.8	28.4	25.1	23.0	21.8	12.4	12.5			28.1
1990	65.3	47.5	39.6	35.1	31.9	28.6	25.5	23.0	20.3	10.9	13.1			27.8
1991	65.3	47.1	38.1	35.8	32.5	28.1	25.4	23.3	20.9		13.2			28.0
1992	65.3	47.3	39.7	35.9	32.6	28.4	25.6	23.4	22.1	17.3	14.1			27.6
1993	65.3	48.6	38.7	36.5	33.0	28.7	26.0	23.6	22.1	18.9	15.6	17.6		28.2
1994	65.8	48.9	39.6	36.0	33.6	29.1	26.1	23.5	22.4	20.0	17.7	13.9	13.6	28.1
1995		53.7	40.4	37.5	33.9	29.7	26.4	23.5	22.4	19.8	18.2	13.9	13.6	28.3
1996		52.3	38.9	37.4	33.9	29.9	26.5	23.9	22.9	19.9	17.8	14.9		28.3
1997		54.4	39.3	37.0	34.0	30.0	26.7	23.8	22.2	20.2	18.1	14.9	14.9	28.4
1998		53.6	39.0	37.3	34.6	30.1	27.1	23.8	22.0	20.2	17.0	14.9	13.8	28.5
1999		50.3	38.6	35.9	34.6	30.1	27.2	24.2	22.1	19.7	14.9	19.3		28.2
2000		61.6	39.6	36.7	34.3	30.6	27.1	24.4	21.9	18.3	18.1	15.0	15.2	28.2
2001		75.6	39.3	36.2	35.9	31.6	27.2	24.6	22.0	18.2	16.1	17.6	15.2	28.4
2002		75.3	51.5	37.3	36.3	31.4	27.7	24.8	22.3	19.1	16.1	17.6	15.2	28.6
2003		75.1	60.1	40.9	36.8	33.2	27.9	25.0	22.8		19.8	16.6	15.2	29.0
2004		73.8	56.4	41.3	36.8	33.0	28.0	25.3	22.6	21.7	19.1	16.3	16.2	28.7

# Appendix M

Table M-131

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Vans

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975						21.2	19.0	14.0	11.6	12.0		11.1	10.6	13.1
1976							19.5	14.1	13.3	12.4	11.1	11.9	11.5	13.9
1977							20.2	16.1	13.5	12.4		13.0	12.3	14.7
1978							19.4	15.6	13.0	12.5		12.5	11.7	14.2
1979							18.7	16.5	13.6	11.8	11.4	10.6		13.5
1980							19.0	18.4	16.3	14.2	12.4	10.9		16.6
1981							19.3	18.7	17.1	14.8	12.3			17.5
1982							20.9	18.8	16.8	15.1	13.4	11.9		17.3
1983			39.0				19.5	18.8	17.3	17.1	18.2	12.6		17.7
1984			38.6		29.8	25.7	24.2	18.0	17.0	15.6	14.5	12.9		18.9
1985					29.8	26.1	23.5	19.8	16.1	15.4	12.9	21.3		19.5
1986					29.4	26.9	24.3	21.1	17.5	16.0	15.0	23.1		20.6
1987					29.3	26.6	24.1	21.7	17.3	15.9	14.6	22.9		20.9
1988						27.4	24.5	22.2	17.9	16.7	14.2	21.7		21.2
1989						26.3	24.3	22.5	17.5	16.5	14.4	21.3		21.1
1990						26.4	25.2	22.2	18.7	16.5	14.4	21.5		21.2
1991						26.2	25.3	22.5	19.1	16.6	15.2	20.4		21.4
1992						28.3	25.7	22.6	19.2	17.5	15.9	15.0		21.5
1993						28.5	25.3	22.6	19.8	17.7	16.1	21.3		21.9
1994						28.4	24.7	22.8	19.4	17.6	16.2	15.5		21.5
1995						27.7	25.1	22.9	19.1	17.8	16.2	16.1		21.8
1996						27.7	27.0	23.5	20.6	17.8	15.8	16.1		22.2
1997							24.2	23.4	20.7	19.0	17.3	16.3		22.1
1998							27.0	23.8	21.5	18.6	17.4	16.4		22.7
1999							26.9	23.9	22.1	18.2	17.5	16.0		22.3
2000								24.2	22.3	18.4	17.2	16.2	14.2	22.8
2001								24.5	23.4	18.6	17.6	16.1		23.2
2002								24.9	23.3	18.7	17.5	17.1		23.0
2003								25.2	23.3	19.4	17.8	17.5		23.0
2004								25.1	23.9	20.1	18.8	18.8		23.4

# Appendix M

Table M-132

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All SUVs													
YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500. ALL
1975					16.8			13.2	13.5	11.1	10.5	10.3	13.0
1976					17.8	15.4	14.3	13.3	13.9	12.8	11.2	11.9	13.8
1977					18.6	16.8		14.5	15.4	13.6	11.7	11.9	15.1
1978					18.1	16.8		14.2	14.7	13.0	11.8	11.4	14.4
1979		25.7			20.8	17.2	15.6	14.4	12.9	11.4	10.6		12.6
1980		25.2				19.7	16.3	16.0	14.5	14.0	13.8	13.4	15.5
1981		25.2				20.9	17.2	16.9	15.8	15.3	14.1		16.8
1982		25.2	24.8	23.6		20.3	16.6	19.4	15.7	15.1	21.2	21.2	17.6
1983		25.2	24.8	23.2		20.5	24.4	21.9	15.7	15.7	20.2	20.8	19.1
1984			28.8	22.6		22.7	21.7	21.8	14.8	15.3	17.9	21.0	19.3
1985			28.8			24.2	22.2	22.0	15.0	15.7	16.1	21.4	19.8
1986			33.1		25.6	24.0	21.9	21.1	15.6	16.4	15.7	22.1	20.2
1987			33.1			22.8	22.3	20.4	14.6	15.7	16.8	20.9	20.6
1988			33.3			22.8	21.4	20.8	15.0	16.1	16.5	18.3	20.4
1989			33.4	31.3	29.3	22.2	21.1	21.2	14.9	15.9	17.5	15.8	20.0
1990				31.9	28.7	23.4	21.0	20.5	17.5	16.0	17.3	16.0	19.8
1991				31.2	28.9	27.0	20.5	20.9	19.8	15.8	17.2	15.7	20.3
1992				30.0	29.0	23.7	20.0	20.4	19.4	15.7	16.3	14.9	19.9
1993				29.4	29.0	24.1	19.9	20.5	19.7	16.1	16.8	15.8	19.9
1994				29.3	28.7	23.8	20.2	19.7	19.9	16.5	16.8	16.1	19.7
1995				29.7	28.4	23.5	19.8	19.5	19.9	17.0	16.9	15.7	19.6
1996				29.3	28.5	28.2	20.4	19.9	20.2	17.0	17.4	16.8	20.0
1997				28.4	28.6	27.9	22.6	20.2	19.8	18.0	17.4	16.7	20.1
1998				28.5	28.5	28.9	24.0	20.7	20.1	17.3	17.0	16.1	20.1
1999					31.0	29.4	25.3	21.2	19.7	17.4	17.5	16.5	20.1
2000					31.1	29.3	24.0	21.1	19.9	17.6	18.2	16.6	20.1
2001					31.0	29.5	24.7	21.6	19.9	17.8	18.3	16.6	20.5
2002						30.3	25.9	21.9	19.9	18.9	18.4	17.7	20.6
2003						29.4	25.3	22.6	20.8	19.2	18.3	17.4	20.7
2004						30.7	26.4	23.1	21.3	19.6	18.5	17.8	21.0

# Appendix M

Table M-133

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Pickups

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					22.7	20.7	15.1	14.1	11.8	11.0	10.0			14.0
1976					24.1	22.3	16.5	15.3	12.6	11.7	11.4			14.6
1977					25.7	28.6	17.1	16.7	13.7	12.9	11.8			16.0
1978				27.2	25.8	27.5	18.5	16.1	13.6	12.8	12.1	12.6	11.8	15.7
1979			25.0	27.5	22.7	23.9	18.9	15.9	14.2	12.9	11.3	10.9		15.5
1980		25.2	32.0	25.8	25.2	23.6	18.7	18.7	15.7	15.9	13.3	9.9	12.0	19.4
1981		25.2	41.5	28.4	27.9	27.1	21.3	19.2	16.8	16.9	13.3			21.0
1982			43.1	29.7	28.3	26.4	22.3	18.7	17.1	18.9	22.4			21.7
1983			39.2	32.6	28.8	26.4	23.4	18.5	17.0	18.0	22.1			22.2
1984			28.8	28.1	28.2	26.6	22.7	18.5	16.8	17.4	21.9			21.5
1985				29.6	29.9	26.3	23.3	18.5	16.8	16.3	21.1	19.6		21.4
1986				30.0	29.5	26.8	23.2	19.2	17.4	16.3	21.1			22.2
1987				29.8	29.7	27.0	22.9	19.1	17.2	16.0	21.1			22.5
1988					27.8	27.4	22.8	19.7	17.8	16.4	16.9	19.6		21.5
1989					27.6	27.6	22.6	20.1	17.8	16.0	19.2	21.2		21.2
1990					26.0	28.2	23.1	20.2	18.0	16.4	18.6	20.5		20.7
1991						27.5	23.9	20.4	18.1	16.2	17.5	19.5		21.7
1992					28.2	27.1	24.7	20.4	18.4	16.7	16.3			20.9
1993						27.4	24.5	20.5	19.0	16.9	17.0			21.1
1994						28.0	25.3	20.9	18.7	17.0	16.9	18.1		21.0
1995						27.3	26.3	20.9	18.6	16.8	15.9	18.1		20.4
1996						27.2	26.3	21.6	18.9	17.3	15.3	18.7		20.8
1997						26.6	27.0	21.5	19.8	18.2	17.0	18.7		20.4
1998						27.3	26.1	21.3	19.8	17.6	16.4	15.6		20.7
1999						27.2	24.9	20.7	19.9	18.1	16.3	16.8		19.9
2000						26.7	24.9	20.8	20.0	18.4	16.2	15.8		20.5
2001						27.1	24.5	20.7	20.0	18.6	16.3	15.8		19.6
2002						27.7	24.9	20.9	19.8	18.7	17.0	17.5		19.5
2003						27.8	26.0	21.4	20.1	18.9	17.1	17.0		19.8
2004						27.7	25.9	22.0	20.5	19.3	18.8	18.3		19.9

# Appendix M

Table M-134

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Trucks

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975					21.0	20.7	16.1	14.1	11.9	11.1	10.0	10.9	10.6	13.7
1976					22.5	21.0	16.9	15.0	12.9	12.1	11.4	11.9	11.5	14.4
1977					24.2	26.0	17.5	16.5	13.8	13.1	11.8	12.4	12.3	15.6
1978				27.2	23.5	25.2	18.6	15.9	13.5	12.8	12.1	11.8	11.7	15.2
1979		25.7	25.0	27.5	22.6	21.9	16.9	15.9	13.9	12.3	11.1	10.8		14.7
1980		25.2	32.0	25.8	25.2	22.7	18.3	18.6	15.7	15.1	13.1	12.3	12.0	18.6
1981		25.2	41.5	28.4	27.9	25.9	20.9	19.1	16.8	15.8	13.7			20.1
1982		25.2	39.1	27.6	28.3	25.9	22.1	18.7	16.8	17.0	21.5	21.1		20.5
1983		25.2	28.4	28.2	28.8	25.7	23.3	19.0	17.0	17.0	20.4	20.2		20.9
1984			31.1	27.0	28.3	26.0	22.7	18.9	16.7	16.0	17.9	20.4		20.5
1985			28.8	29.6	29.9	26.2	23.0	19.6	16.4	15.9	16.1	21.4		20.6
1986			33.1	30.0	29.5	26.8	23.0	20.1	17.3	16.3	16.0	22.2		21.4
1987			33.1	29.8	29.7	26.9	23.0	20.5	17.1	15.9	16.7	21.2		21.6
1988			33.3		27.8	27.4	22.6	21.1	17.7	16.4	16.2	18.7		21.2
1989			33.4	31.3	27.6	27.4	22.5	21.5	17.6	16.1	17.2	15.8		20.9
1990				31.9	26.8	27.8	23.0	21.3	18.2	16.4	16.8	16.0		20.7
1991				31.2	28.9	27.5	22.8	21.5	18.8	16.2	16.7	15.8	20.2	21.3
1992				30.0	28.6	26.9	23.2	21.5	18.9	16.8	16.2	14.9		20.8
1993				29.4	29.0	27.0	23.5	21.5	19.3	17.0	16.6	15.8		21.0
1994				29.3	28.7	27.2	24.2	21.3	19.3	17.0	16.7	16.1		20.8
1995				29.7	28.4	25.7	24.7	21.4	19.2	17.0	16.6	15.8		20.5
1996				29.3	28.5	27.6	24.5	22.0	19.8	17.4	16.6	16.7		20.8
1997				28.4	28.6	27.5	24.9	21.8	19.9	18.3	17.2	16.7		20.6
1998				28.5	28.5	27.9	25.3	22.1	20.2	17.7	16.9	15.9		20.9
1999					31.0	28.3	25.1	22.0	20.3	17.9	17.0	16.7		20.5
2000					31.1	28.0	24.5	22.2	20.5	18.2	17.8	16.6	14.2	20.8
2001					31.0	28.9	24.7	22.1	20.9	18.4	17.6	16.5		20.6
2002						29.6	25.6	22.4	20.6	18.7	17.7	17.7		20.6
2003						29.0	25.5	22.9	21.3	19.1	17.6	17.3		20.7
2004						29.7	26.3	23.1	21.9	19.5	18.7	18.0		20.9

# Appendix M

Table M-135

Laboratory 55/45 Fuel Economy by Marketing Group Vehicle Type and Inertia Weight

Model Year 1975 to 2004 All Vehicles

YEAR	1750.	2000.	2250.	2500.	2750.	3000.	3500.	4000.	4500.	5000.	5500.	6000.	6500.	ALL
1975		31.4	28.3	24.4	21.4	21.4	18.1	14.8	13.8	12.6	12.0	10.9	10.6	15.3
1976		32.6	29.6	26.2	23.5	23.3	19.2	16.5	15.0	14.1	13.1	11.9	11.5	16.7
1977		36.0	32.1	29.3	24.5	23.6	19.9	17.5	15.9	13.9	12.4	12.4	12.3	17.7
1978		34.9	31.9	27.9	24.4	22.8	20.1	17.1	15.3	13.8	12.4	11.8	11.7	18.6
1979		32.0	31.4	27.9	23.5	22.1	20.1	17.3	15.4	12.7	11.1	10.8		18.7
1980		32.8	32.4	28.0	25.8	23.5	20.6	18.8	17.1	15.1	13.1	12.3	12.0	22.5
1981		38.3	34.5	29.3	27.8	24.6	22.1	19.9	18.3	15.8	13.5			24.1
1982		40.1	35.6	31.1	28.7	25.7	22.4	20.0	17.9	16.9	21.4	21.1		24.7
1983		43.1	36.2	32.0	29.8	25.8	22.9	20.0	17.6	16.9	20.3	20.2		24.6
1984		44.3	37.0	32.6	29.9	26.3	22.9	20.0	17.3	15.9	17.9	20.4		24.6
1985	57.4	44.4	37.4	32.8	30.5	26.9	23.3	21.0	16.8	15.8	16.1	21.3		25.0
1986	55.9	36.6	38.2	33.7	30.5	27.3	24.0	21.0	17.7	16.2	16.0	22.1		25.7
1987	56.8	40.0	38.2	33.4	30.7	27.7	24.0	21.1	17.6	15.8	16.6	21.0		25.9
1988	51.6	43.6	37.8	34.1	31.2	28.2	24.5	21.5	18.1	16.4	16.2	18.7		25.9
1989	59.4	43.5	38.6	34.3	31.5	28.2	24.4	22.0	17.9	16.1	17.1	15.8		25.4
1990	65.3	47.5	39.6	35.0	31.7	28.5	24.9	22.1	18.3	16.4	16.7	16.0		25.2
1991	65.3	47.1	38.1	35.7	32.4	28.0	24.7	22.2	18.9	16.2	16.6	15.8	20.2	25.4
1992	65.3	47.3	39.7	35.6	32.4	28.1	25.1	22.3	19.1	16.8	16.2	14.9		24.9
1993	65.3	48.6	38.7	36.2	32.9	28.4	25.4	22.2	19.5	17.1	16.6	15.9		25.1
1994	65.8	48.9	39.6	35.5	33.5	28.8	25.5	22.2	19.4	17.1	16.7	16.1	13.6	24.6
1995		53.7	40.4	37.1	33.8	29.1	26.0	22.2	19.3	17.1	16.7	15.8	13.6	24.7
1996		52.3	38.9	37.3	33.6	29.7	26.1	22.7	20.0	17.4	16.6	16.7		24.8
1997		54.4	39.3	36.9	34.0	29.7	26.3	22.6	20.0	18.3	17.2	16.7	14.9	24.5
1998		53.6	39.0	36.9	34.5	29.8	26.7	22.6	20.2	17.7	16.9	15.9	13.8	24.5
1999		50.3	38.6	35.9	34.6	29.9	26.8	22.7	20.3	17.9	17.0	16.7		24.1
2000		61.6	39.6	36.7	34.3	30.5	26.6	22.9	20.5	18.2	17.8	16.6	15.1	24.3
2001		75.6	39.3	36.2	35.9	31.4	26.7	23.1	21.0	18.4	17.6	16.6	15.2	24.2
2002		75.3	51.5	37.3	36.3	31.3	27.4	23.3	20.7	18.7	17.7	17.7	15.2	24.1
2003		75.1	60.1	40.9	36.8	33.1	27.5	23.7	21.4	19.1	17.6	17.3	15.2	24.4
2004		73.8	56.4	41.3	36.8	32.9	27.8	24.1	22.0	19.5	18.7	18.0	16.2	24.4



# Appendix N

Table N-1

Best Four Model Year 2004 Car Nameplates by Vehicle Size Class

Size Class	Marketing Group	Model Name	Laboratory 55/45 MPG
Two Seater	Toyota	MR2	28.6
	Ford	MX-5 MIATA	25.0
	BMW	Z4 ROADSTER	23.2
	DC	SLK320	22.3
Minicompact	BMW	MINI COOPER S	29.0
	VW	NEW BEETLE CONVERTIBLE	25.0
	VW	TT COUPE QUATTRO	23.6
	DC	ECLIPSE SPYDER	23.2
Subcompact	Toyota	SCION XA	34.2
	Toyota	CELICA	30.2
	GM	AVEO	29.4
	Honda	RSX	28.1
Compact	Toyota	ECHO	36.3
	Honda	CIVIC	32.8
	Toyota	COROLLA	32.5
	DC	ACCENT-BRIO	29.9
Midsize	DC	ELANTRA	29.9
	GM	CLASSIC	27.6
	GM	MALIBU	26.5
	Honda	ACCORD	26.3
Large	GM	MALIBU MAXX	26.1
	Toyota	AVALON	24.3
	GM	IMPALA	24.1
	DC	INTREPID	23.5
Small Wagon	Toyota	SCION XB	32.0
	Toyota	COROLLA MATRIX	30.1
	GM	VIBE	29.7
	GM	AERIO	26.8
Midsize Wagon	Ford	FOCUS	26.7
	GM	LW300	24.9
	VW	PASSAT	23.7
	Ford	V70	23.2
Large Wagon	DC	PACIFICA	18.9

# Appendix N

Table N-2

Best Four Model Year 2004 Truck Nameplates by Vehicle Size Class

Size Class	Marketing Group	Model Name	Laboratory 55/45 MPG
Midsize Van	Toyota	SIENNA	21.9
	GM	VENTURE	21.8
	DC	CARAVAN	21.1
	Nissan	QUEST	21.1
Large Van	GM	G1500-2500 CHEVY VAN	16.5
	Ford	E250 ECONOLINE	16.3
	Ford	E150 CLUB WAGON	15.6
Small SUV	Toyota	RAV4	25.2
	Subaru	FORESTER	23.3
	GM	TRACKER	20.1
	GM	GRAND VITARA	20.0
Midsize SUV	Honda	CR-V	23.6
	DC	OUTLANDER	22.9
	Honda	ELEMENT	22.8
	GM	VUE	22.7
Large SUV	GM	RENDEZVOUS	21.6
	GM	GRAND VITARA XL-7	19.2
	Ford	XC 90	17.9
	Nissan	FX45	17.8
Small Pickup	GM	BAJA	22.5
	Toyota	TACOMA	19.1
Midsize Pickup	GM	COLORADO	20.6
	Ford	RANGER	19.5
	DC	DAKOTA	18.0
	GM	S10 PICKUP	16.8
Large Pickup	GM	COLORADO CREW CAB	19.9
	Nissan	FRONTIER	19.2
	Ford	EXPLORER SPORT TRAC	17.5
	GM	SILVERADO	16.8

# Appendix N

Table N-3 MY2004 Best in Car Size Class Role Models

Size Class	Rank	Marketing Group	Model Name	Weight	Drive	HP	CID	Trans	Lab. 55/45 MPG
Two Seater	1	Toyota	MR2	2500	Rear	138	110	M6	33.7
	2	Toyota	MR2	2500	Rear	138	110	M5	33.6
	3	Ford	MX-5 MIATA	2750	Rear	142	110	M5	29.7
	4	Ford	MX-5 MIATA	2750	Rear	142	110	M6	29.4
	5	Ford	MX-5 MIATA	2750	Rear	142	110	L4	28.6
	6	DC	SLK230	3500	Rear	194	140	L5	28.3
	7	DC	SLK230	3500	Rear	194	140	M6	28.0
	8	BMW	Z4 ROADSTER	3000	Rear	225	182	M6	27.8
	9	VW	TT ROADSTER QUATTRO	4000	4wd	250	195	L6	27.6
	10	DC	CROSSFIRE	3500	Rear	168	196	L5	27.6
	11	BMW	Z4 ROADSTER	3000	Rear	184	152	L6	27.5
	12	BMW	Z4 ROADSTER	3000	Rear	225	182	L6	27.4
Minicompact	1	BMW	MINI COOPER	2750	Front	114	98	M5	37.1
	2	BMW	MINI COOPER S	3000	Front	161	98	M6	32.9
	3	BMW	MINI COOPER	2750	Front	114	98	CVT	32.4
	4	VW	NEW BEETLE CONVERTIBLE	3500	Front	180	109	M5	31.3
	5	VW	NEW BEETLE CONVERTIBLE	3500	Front	115	121	M5	31.0
	6	DC	ECLIPSE SPYDER	3500	Front	147	143	M5	30.3
	7	VW	NEW BEETLE CONVERTIBLE	3500	Front	115	121	L6	29.0
	8	VW	NEW BEETLE CONVERTIBLE	3500	Front	150	109	L6	28.4
	9	VW	TT COUPE QUATTRO	3500	4wd	250	195	L6	28.2
	10	VW	TT COUPE	3000	Front	180	109	L6	27.8
	11	DC	ECLIPSE SPYDER	3500	Front	210	181	M5	27.6
	12	DC	ECLIPSE SPYDER	3500	Front	200	181	M5	27.3
Subcompact	1	Toyota	SCION XA	2750	Front	108	91	L4	40.2
	2	Toyota	SCION XA	2750	Front	108	91	M5	40.0
	3	Toyota	CELICA	2750	Front	140	110	L4	37.2
	4	GM	CHEVROLET AVEO	2750	Front	103	98	M5	35.1
	5	Honda	RSX	3000	Front	160	122	M5	34.8
	6	Toyota	CELICA	2750	Front	140	110	M5	34.3
	7	GM	CHEVROLET AVEO	2750	Front	103	98	A4	34.1
	8	Honda	RSX	3000	Front	160	122	L5	33.4
	9	Toyota	CELICA	2750	Front	180	110	M6	32.2
	10	Toyota	CELICA	3000	Front	180	110	L4	32.1
	11	Honda	RSX	3000	Front	200	122	M6	31.6
	12	VW	NEW BEETLE	3000	Front	180	109	M5	31.4
Compact	1	Honda	CIVIC	2750	Front	117	102	M5	46.1
	2	Toyota	ECHO	2250	Front	108	91	M5	45.4
	3	Toyota	ECHO	2500	Front	108	91	M5	44.8
	4	Honda	CIVIC	2750	Front	117	102	CVT	43.5
	5	VW	JETTA	3500	Front	100	116	L5	43.4
	6	Toyota	ECHO	2500	Front	108	91	L4	41.8
	7	Toyota	COROLLA	2750	Front	130	110	M5	41.6
	8	Honda	CIVIC	2750	Front	115	102	M5	40.1
	9	Honda	CIVIC	2750	Front	127	102	M5	39.7
	10	Honda	CIVIC	3000	Front	127	102	L4	39.4
	11	Honda	CIVIC	2750	Front	115	102	L4	38.3
	12	Toyota	COROLLA	2750	Front	130	110	L4	37.9

# Appendix N

Table N-3 (continued) MY2004 Best in Car Size Class Role Models

Size Class	Rank	Marketing Group	Model Name	Weight	Drive	HP	CID	Trans	Lab. 55/45
							MPG		
Midsize	1	DC	ELANTRA	3000	Front	138	121	M5	35.1
	2	Honda	ACCORD	3500	Front	160	144	M5	33.7
	3	GM	MALIBU	3500	Front	140	134	L4	32.6
	4	GM	CLASSIC	3000	Front	140	134	L4	32.2
	5	Honda	ACCORD	3500	Front	160	144	L5	32.1
	6	Toyota	CAMRY	3500	Front	159	144	M5	32.0
	7	Ford	MAZDA 6	3500	Front	160	140	M5	32.0
	8	Toyota	CAMRY	3500	Front	147	144	L4	30.9
	9	GM	MALIBU	3500	Front	190	213	L4	30.5
	10	DC	GALANT	3500	Front	155	145	L4	30.1
	11	Nissan	ALTIMA	3500	Front	175	152	M5	29.8
	12	DC	SONATA	3500	Front	138	144	M5	29.8
Large	1	GM	MALIBU MAXX	3500	Front	190	213	L4	30.5
	2	GM	IMPALA	3500	Front	180	204	L4	29.0
	3	Toyota	AVALON	3500	Front	210	183	L4	28.4
	4	DC	INTREPID	3500	Front	200	165	L4	28.4
	5	GM	IMPALA	3500	Front	200	231	L4	27.5
	6	GM	LESABRE	4000	Front	205	231	L4	27.1
	7	Ford	TAURUS	3500	Front	200	182	L4	26.5
	8	GM	IMPALA	3500	Front	200	231	L4	26.3
	9	DC	INTREPID	4000	Front	242	215	L4	25.5
	10	GM	BONNEVILLE	4000	Front	250	231	L4	25.4
	11	DC	300 M	4000	Front	242	215	L4	25.4
	12	Ford	TAURUS	3500	Front	155	182	L4	25.3
Small Wagon	1	Toyota	SCION XB	2750	Front	108	91	M5	38.4
	2	Toyota	COROLLA MATRIX	3000	Front	130	110	M5	37.7
	3	GM	VIBE	3000	Front	130	110	M5	37.7
	4	Toyota	SCION XB	2750	Front	108	91	L4	37.3
	5	GM	VIBE	3000	Front	130	110	L4	36.0
	6	Toyota	COROLLA MATRIX	3000	Front	130	110	L4	35.9
	7	Toyota	COROLLA MATRIX	3000	Front	123	110	L4	32.8
	8	GM	VIBE	3000	Front	123	110	L4	32.8
	9	GM	VIBE	3000	Front	173	110	M5	32.3
	10	Toyota	COROLLA MATRIX	3000	Front	173	110	M6	32.2
	11	GM	AERIO SX	3000	Front	155	140	M5	32.1
	12	GM	AERIO SX	3000	Front	155	140	L4	31.7
Midsize Wagon	1	Ford	FOCUS	3000	Front	130	121	M5	33.4
	2	Ford	FOCUS	3000	Front	144	140	M5	32.7
	3	GM	LW300	3500	Front	140	134	L4	32.6
	4	Ford	FOCUS	3000	Front	130	121	L4	31.6
	5	Ford	FOCUS	3000	Front	144	140	L4	30.9
	6	VW	PASSAT	3500	Front	170	109	M5	29.5
	7	Ford	V70	3500	Front	168	149	M5	29.0
	8	Ford	V70	4000	Front	168	149	L5	28.9
	9	VW	PASSAT	3500	Front	170	109	L5	28.8
	10	GM	SAAB 9-5	4000	Front	185	141	M5	28.1
	11	GM	LEGACY-OUTBACK	4000	4wd	165	150	L4	28.0
	12	GM	LEGACY-OUTBACK	3500	4wd	165	150	L4	27.9
Large Wagon	1	DC	PACIFICA	4500	Front	249	215	L4	22.4
	2	DC	PACIFICA	5000	4wd	249	215	L4	21.8

# Appendix N

Table N-4

## MY2004 Best in Truck Size Class Role Models

Size Class	Rank	Marketing Group	Model Name	Weight	Drive	HP	CID	Trans	Lab. 55/45 MPG
Midsize Van	1	DC	CARAVAN_	4000	Front	150	148	L4	25.9
	2	Toyota	SIENNA	4500	Front	230	202	L5	25.7
	3	DC	CARAVAN	4000	Front	180	201	L4	25.6
	4	GM	VENTURE FWD	4000	Front	185	204	L4	25.5
	5	Nissan	QUEST	4500	Front	240	213	L4	24.9
	6	GM	MONTANA	4500		185	204	L4	24.5
	7	DC	CARAVAN	4500	Front	180	201	L4	24.4
	8	Honda	ODYSSEY	4500	Front	240	212	L5	24.2
	9	DC	CARAVAN	4500	Front	215	232	L4	23.9
	10	Nissan	QUEST	4500	Front	240	213	L5	23.8
	11	Toyota	SIENNA	4500	4wd	230	202	L5	23.8
	12	Ford	MPV	4000	Front	200	183	L5	23.8
Large Van	1	GM	G1500-2500 CHEVY VAN	5000	Rear	285	325	L4	20.1
	2	GM	G1500-2500 CHEVY VAN	6000	Rear	285	325	L4	19.9
	3	GM	G1500-2500 CHEVY VAN	5000	Rear	190	262	L4	19.7
	4	GM	G1500-2500 CHEVY EXPRESS	5500	Rear	200	262	L4	19.6
	5	Ford	E150 CLUB WAGON	5500	Rear	231	280	L4	19.5
	6	Ford	E150 ECONOLINE	5000	Rear	225	280	L4	19.3
	7	GM	G1500-2500 CHEVY VAN	6000	Rear	200	262	L4	18.8
	8	GM	H1500-2500 CHEVY VAN	5500	4wd	285	325	L4	18.6
	9	GM	G1500-2500 CHEVY VAN	5500	Rear	285	325	L4	18.6
	10	GM	H1500-2500 CHEVY VAN	6000	4wd	285	325	L4	18.3
	11	Ford	E150 ECONOLINE	5000	Rear	255	330	L4	18.0
	12	Ford	E150 CLUB WAGON	6000	Rear	260	330	L4	17.4
Small SUV	1	Toyota	RAV4	3000	Front	161	144	L4	30.9
	2	Toyota	RAV4	3000	Front	161	144	M5	30.8
	3	Toyota	RAV4	3500	4wd	161	144	L4	28.3
	4	GM	FORESTER	3500	4wd	165	150	L4	27.9
	5	Toyota	RAV4	3500	4wd	161	144	M5	27.9
	6	GM	FORESTER	3500	4wd	165	150	M5	27.9
	7	GM	FORESTER	3500	4wd	210	150	L4	24.1
	8	GM	TRACKER HARDTOP	3500	Rear	165	152	L4	23.7
	9	GM	GRAND VITARA	3500	Rear	165	152	L4	23.7
	10	GM	TRACKER ZR2	3500	4wd	165	152	L4	23.6
	11	GM	FORESTER	3500	4wd	210	150	M5	23.6
	12	GM	GRAND VITARA	3500	4wd	165	152	M5	23.6
Midsize SUV	1	GM	VUE FWD	3500	Front	140	134	M5	30.2
	2	Honda	CR-V	3500	Front	160	144	L4	29.4
	3	Ford	TRIBUTE	3500	Front	130	122	M5	29.0
	4	Toyota	HIGHLANDER	4000	Front	155	144	L4	28.3
	5	Honda	ELEMENT	3500	Front	160	144	L4	28.1
	6	GM	VUE FWD	3500	Front	140	134	CVT	28.1
	7	DC	OUTLANDER	3500	Front	160	145	L4	27.5
	8	Honda	CR-V	3500	4wd	160	144	L4	27.5
	9	GM	VUE	3500	4wd	140	134	CVT	27.5
	10	Ford	TRIBUTE	3500	4wd	130	122	M5	27.3
	11	Honda	ELEMENT	3500	Front	160	144	M5	27.0
	12	Honda	CR-V	3500	4wd	160	144	M5	26.8

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Table N-4 (continued)

MY2004 Best in Truck Size Class Role Models

Size Class	Rank	Marketing Group	Model Name	Weight	Drive	HP	CID	Trans	Lab. 55/45 MPG
Large SUV	1	GM	RENDEZVOUS	4000	Front	185	204	L4	25.5
	2	GM	RENDEZVOUS	4500	4wd	185	204	L4	24.5
	3	Ford	XC 90	4500	Front	208	154	L5	24.2
	4	Ford	XC 90	4500	4wd	208	154	L5	23.7
	5	Ford	XC 90	5000	4wd	208	154	L5	23.1
	6	GM	GRAND VITARA XL-7	4000	Rear	185	167	L5	22.9
	7	Nissan	FX35 RWD	4500	Rear	280	213	L5	22.5
	8	GM	GRAND VITARA XL-7	4000	4wd	185	167	L5	22.4
	9	GM	GRAND VITARA XL-7	4000	Rear	185	167	M5	22.3
	10	GM	GRAND VITARA XL-7	4000	4wd	185	167	M5	22.1
	11	GM	SRX	4500	Rear	255	218	L5	21.9
	12	Nissan	FX35	4500	4wd	280	213	L5	21.6
Small Pickup	1	Toyota	TACOMA	3500	Rear	142	149	M5	28.4
	2	Toyota	TACOMA	3000	Rear	142	149	M5	28.4
	3	GM	BAJA	4000	4wd	165	150	L4	27.8
	4	GM	BAJA	4000	4wd	165	150	M5	27.5
	5	Toyota	TACOMA	3000	Rear	142	149	A4	27.1
	6	Toyota	TACOMA	3500	Rear	142	149	A4	26.8
	7	Toyota	TACOMA	3500	Rear	190	206	M5	24.6
	8	Toyota	TACOMA	3500	Rear	150	164	L4	23.6
	9	GM	BAJA	4000	4wd	210	150	M5	23.4
	10	GM	BAJA	4000	4wd	210	150	L4	23.4
	11	Toyota	TACOMA	4000	Rear	150	164	L4	23.2
	12	Toyota	TACOMA	4000	4wd	150	164	L4	22.8
Midsize Pickup	1	Ford	RANGER	3500	Rear	140	140	M5	30.2
	2	Ford	RANGER	3500	Rear	140	140	L5	27.7
	3	GM	COLORADO	3500	Rear	215	211	M5	25.3
	4	GM	COLORADO	4000	Rear	215	211	M5	25.3
	5	GM	COLORADO	4000	Rear	215	211	L4	24.4
	6	GM	COLORADO	4000	4wd	215	211	M5	23.7
	7	GM	COLORADO	4000	4wd	215	211	L4	23.3
	8	Ford	RANGER	3500	Rear	143	182	M5	23.2
	9	Ford	B3000	4000	Rear	143	182	M5	23.2
	10	Ford	RANGER	4000	Rear	143	182	L5	22.8
	11	Ford	RANGER	4000	Rear	207	244	M5	22.5
	12	DC	DAKOTA	4000	Rear	210	226	L4	22.5
Large Pickup	1	Nissan	FRONTIER	3500	Rear	143	146	M5	28.3
	2	Nissan	FRONTIER	3500	Rear	143	146	L4	25.1
	3	GM	COLORADO CREW CAB	4000	Rear	215	211	L4	24.4
	4	GM	COLORADO CREW CAB	4500	4wd	215	211	L4	22.1
	5	Nissan	FRONTIER	4000	Rear	180	200	L4	21.7
	6	Nissan	FRONTIER	4000	Rear	180	200	M5	21.5
	7	Nissan	FRONTIER	4000	4wd	180	200	M5	21.5
	8	Nissan	FRONTIER	4500	4wd	180	200	M5	21.3
	9	Nissan	FRONTIER	4000	4wd	180	200	L4	21.3
	10	Ford	F150	4500	Rear	205	256	M5	21.3
	11	GM	C1500 SILVERADO	5000	Rear	270	325	L4	21.2
	12	Toyota	TUNDRA	4000	Rear	190	206	L4	21.0

Appendix N

Table N-5

MY2004 Best in Car Weight Class Role Models

Weight Class	Rank	Marketing Group	Model Name	Car Class	Drive	HP	CID	Trans	Lab. 55/45 MPG
2250	1	Toyota	ECHO	Compact	Front	108	91	M5	45.4
2500	1	Toyota	ECHO	Compact	Front	108	91	M5	44.8
	2	Toyota	ECHO	Compact	Front	108	91	L4	41.8
	3	DC	ACCENT-BRIO	Compact	Front	90	91	M5	36.6
	4	Toyota	MR2	Two Seater	Rear	138	110	M6	33.7
	5	Toyota	MR2	Two Seater	Rear	138	110	M5	33.6
2750	1	Honda	CIVIC	Compact	Front	117	102	M5	46.1
	2	Honda	CIVIC	Compact	Front	117	102	CVT	43.5
	3	Toyota	COROLLA	Compact	Front	130	110	M5	41.6
	4	Toyota	SCION XA	Subcompact	Front	108	91	L4	40.2
	5	Honda	CIVIC	Compact	Front	115	102	M5	40.1
	6	Toyota	SCION XA	Subcompact	Front	108	91	M5	40.0
	7	Honda	CIVIC	Compact	Front	127	102	M5	39.7
	8	Toyota	SCION XB	Small Wagon	Front	108	91	M5	38.4
	9	Honda	CIVIC	Compact	Front	115	102	L4	38.3
	10	Toyota	COROLLA	Compact	Front	130	110	L4	37.9
	11	Toyota	SCION XB	Small Wagon	Front	108	91	L4	37.3
	12	Toyota	CELICA	Subcompact	Front	140	110	L4	37.2
3000	1	Honda	CIVIC	Compact	Front	127	102	L4	39.4
	2	Toyota	COROLLA MATRIX	Small Wagon	Front	130	110	M5	37.7
	3	GM	VIBE	Small Wagon	Front	130	110	M5	37.7
	4	Honda	CIVIC	Compact	Front	100	102	CVT	37.3
	5	DC	NEON-SRT-4-SX 2.0	Compact	Front	132	122	M5	37.1
	6	Nissan	CENTRA	Compact	Front	126	108	L4	36.2
	7	GM	VIBE	Small Wagon	Front	130	110	L4	36.0
	8	DC	LANCER	Compact	Front	120	122	M5	36.0
	9	Toyota	COROLLA MATRIX	Small Wagon	Front	130	110	L4	35.9
	10	Ford	MAZDA 3	Compact	Front	148	122	M5	35.7
	11	GM	CAVALIER	Compact	Front	140	134	M5	35.1
	12	DC	ELANTRA	Midsize	Front	138	121	M5	35.1
3500	1	Honda	ACCORD	Midsize	Front	160	144	M5	33.7
	2	GM	MALIBU	Midsize	Front	140	134	L4	32.6
	3	GM	L300	Midsize	Front	140	134	L4	32.6
	4	Honda	ACCORD	Midsize	Front	160	144	L5	32.1
	5	Toyota	CAMRY SOLARA	Compact	Front	159	144	M5	32.0
	6	Toyota	CAMRY	Midsize	Front	159	144	M5	32.0
	7	Ford	MAZDA 6	Midsize	Front	160	140	M5	32.0
	8	DC	STRATUS	Compact	Front	147	143	M5	31.4
	9	GM	SAAB 9-3 SPORT SEDAN	Compact	Front	175	121	M5	31.4
	10	VW	JETTA	Compact	Front	180	109	M5	31.3
	11	VW	NEW BEETLE CONVERTIBLE	Minicompact	Front	180	109	M5	31.3
	12	VW	JETTA	Small Wagon	Front	180	109	M5	31.3

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Table N-5 (continued)

MY2004 Best in Car Weight Class Role Models

Weight Class	Rank	Marketing Group	Model Name	Car Class	Drive	HP	CID	Trans	Lab. 55/45 MPG
4000	1	VW	A4 CABRIOLET	Subcompact	Front	170	109	CVT	30.1
	2	Ford	V70 FWD	Midsize Wagon	Front	168	149	L5	28.9
	3	VW	A4 AVANT QUATTRO	Small Wagon	4wd	170	109	M6	28.7
	4	GM	SAAB 9-3 CONVERTIBLE	Subcompact	Front	210	121	M6	28.3
	5	GM	SAAB 9-3 CONVERTIBLE	Subcompact	Front	210	121	M5	28.2
	6	GM	SAAB 9-5	Midsize Wagon	Front	185	141	M5	28.1
	7	GM	LEGACY-OUTBACK WAGON	Midsize Wagon	4wd	165	150	L4	28.0
	8	GM	LEGACY-OUTBACK	Compact	4wd	165	150	L4	28.0
	9	GM	SAAB 9-5	Midsize	Front	250	141	M5	27.9
	10	Nissan	MAXIMA	Midsize	Front	260	213	M6	27.7
	11	VW	TT ROADSTER QUATTRO	Two Seater	4wd	250	195	L6	27.6
	12	Toyota	ES 330	Midsize	Front	225	202	L5	27.5
4500	1	BMW	745LI	Large	Rear	328	268	L6	24.4
	2	DC	S430	Large	Rear	275	260	L7	24.1
	3	Toyota	LS 430	Large	Rear	290	262	L6	23.9
	4	DC	E320 4MATIC	Midsize Wagon	4wd	221	195	L5	23.4
	5	VW	A8	Large	4wd	335	255	L6	23.4
	6	VW	S4 CABRIOLET	Subcompact	4wd	344	254	L6	23.2
	7	Ford	GRAND MARQUIS	Large	Rear	220	281	L4	23.1
	8	Ford	MARAUDER	Large	Rear	300	281	L4	22.5
	9	DC	PACIFICA	Large Wagon	Front	249	215	L4	22.4
	10	DC	S500	Large	Rear	302	303	L7	21.9
	11	DC	CL500	Compact	Rear	302	303	L7	21.9
	12	DC	E500	Midsize Wagon	Rear	302	303	L7	21.9
5000	1	DC	PACIFICA	Large Wagon	4wd	249	215	L4	21.8
	2	BMW	760LI	Large	Rear	429	364	L6	20.3
	3	DC	S600	Large	Rear	493	336	L5	17.0
5500	1	BMW	PHAETON	Large	4wd	335	255	L6	20.6
	2	GM	LIMOUSINE	Large	Front	275	279	L4	20.0
	3	DC	ML350	Subcompact	4wd	232	227	L5	19.2
	4	DC	ML500	Subcompact	4wd	288	303	L5	18.2
	5	BMW	PHANTOM	Midsize	Rear	453	412	L6	17.1
	6	BMW	PHAETON	Large	4wd	420	366	L5	16.9
6000	1	GM	FUNERAL COACH-HEARSE	Large	Front	275	279	L4	18.8
	2	VW	BENTLEY ARNAGE	Midsize	Rear	450	412	L4	13.8
	3	VW	BENTLEY ARNAGE LWB	Large	Rear	450	412	L4	13.8
6500	1	DC	MAYBACH 57	Large	Rear	543	336	L5	16.2
	2	DC	MAYBACH 62	Large	Rear	543	336	L5	16.0



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Table N-6

MY2004 Best in Truck Weight Class Role Models

Weight	Rank	Marketing Group	Model Name	Size Class	Drive	HP	CID	Trans	Lab. 55/45 MPG
3000	1	Toyota	RAV4	Small SUV	Front	161	144	L4	30.9
	2	Toyota	RAV4	Small SUV	Front	161	144	M5	30.8
	3	Toyota	TACOMA	Small Pickup	Rear	142	149	M5	28.4
	4	Toyota	TACOMA	Small Pickup	Rear	142	149	A4	27.1
	5	GM	VITARA	Small SUV	Rear	165	152	M5	23.5
3500	1	GM	VUE	Midsize SUV	Front	140	134	M5	30.2
	2	Ford	RANGER	Midsize Pick	Rear	140	140	M5	30.2
	3	Honda	CR-V	Midsize SUV	Front	160	144	L4	29.4
	4	Ford	ESCAPE	Midsize SUV	Front	130	122	M5	29.0
	5	Toyota	TOYOTA TACOMA	Small Pickup	Rear	142	149	M5	28.4
	6	Nissan	FRONTIER	Large Pickup	Rear	143	146	M5	28.3
	7	Toyota	RAV4	Small SUV	4wd	161	144	L4	28.3
	8	Honda	ELEMENT	Midsize SUV	Front	160	144	L4	28.1
	9	GM	VUE	Midsize SUV	Front	140	134	CVT	28.1
	10	GM	FORESTER	Small SUV	4wd	165	150	L4	27.9
	11	Toyota	RAV4	Small SUV	4wd	161	144	M5	27.9
	12	GM	FORESTER	Small SUV	4wd	165	150	M5	27.9
4000	1	Toyota	HIGHLANDER	Midsize SUV	Front	155	144	L4	28.3
	2	GM	BAJA	Small Pickup	4wd	165	150	L4	27.8
	3	GM	BAJA	Small Pickup	4wd	165	150	M5	27.5
	4	DC	SANTAFE	Midsize SUV	Front	138	144	M5	26.5
	5	Honda	ELEMENT	Midsize SUV	4wd	160	144	L4	26.5
	6	GM	VUE	Midsize SUV	Front	255	212	L5	26.5
	7	DC	SANTAFE	Midsize SUV	Front	138	144	L4	26.4
	8	DC	SANTAFE	Midsize SUV	Front	173	162	L4	26.4
	9	Toyota	HIGHLANDER	Midsize SUV	4wd	155	144	L4	26.2
	10	DC	CARAVAN	Midsize Van	Front	150	148	L4	25.9
	11	Honda	ELEMENT	Midsize SUV	4wd	160	144	M5	25.9
	12	Nissan	MURANO	Midsize SUV	Front	245	213	CVT	25.9
4500	1	Toyota	SIENNA	Midsize Van	Front	230	202	L5	25.7
	2	Nissan	QUEST	Midsize Van	Front	240	213	L4	24.9
	3	GM	AZTEK	Midsize SUV	4wd	185	204	L4	24.5
	4	GM	RENDEZVOUS	Large SUV	4wd	185	204	L4	24.5
	5	GM	MONTANA	Midsize Van	4wd	185	204	L4	24.5
	6	DC	CARAVAN	Midsize Van	Front	180	201	L4	24.4
	7	Honda	ODYSSEY	Midsize Van	Front	240	212	L5	24.2
	8	Toyota	RX 330	Midsize SUV	4wd	230	202	L5	24.2
	9	Ford	XC 90	Large SUV	Front	208	154	L5	24.2
	10	Toyota	RX 330	Midsize SUV	4wd	230	202	L5	24.2
	11	Toyota	HIGHLANDER	Midsize SUV	4wd	230	202	L5	24.1
	12	DC	CARAVAN	Midsize Van	Front	215	232	L4	23.9

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Table N-6 (continued)

MY2004 Best in Truck Weight Class Role Models

Weight	Rank	Marketing Group	Model Name	Size Class	Drive	HP	CID	Trans	Lab. 55/45 MPG
5000	1	Ford	XC 90	Large SUV	4wd	208	154	L5	23.1
	2	DC	TOWN & COUNTRY	Midsize Van	4wd	215	232	L4	22.5
	3	GM	C1500 SILVERADO	Large Pickup	Rear	270	325	L4	21.2
	4	BMW	X5	Large SUV	4wd	325	268	L6	21.2
	5	DC	KIA SEDONA	Midsize Van	Front	195	213	L5	21.1
	6	DC	DURANGO	Large SUV	Rear	215	226	L4	20.9
	7	DC	RAM 1500	Large Pickup	Rear	215	226	L4	20.9
	8	BMW	X5	Large SUV	4wd	228	182	L5	20.7
	9	DC	RAM 1500	Large Pickup	Rear	215	226	M5	20.3
	10	GM	TRAILBLAZER	Large SUV	4wd	275	254	L4	20.2
	11	GM	C1500 SILVERADO	Large Pickup	Rear	270	325	M5	20.2
	12	GM	ENVOY XL	Large SUV	Rear	285	325	L4	20.1
5500	1	GM	C1500 TAHOE	Large SUV	Rear	270	325	L4	19.9
	2	VW	TOUAREG	Large SUV	4wd	220	195	L6	19.7
	3	GM	G1500-2500 CHEVY EXPRESS	Large Van	Rear	200	262	L4	19.6
	4	Ford	F150	Large Pickup	Rear	300	330	L4	19.6
	5	Ford	EXPEDITION	Large SUV	Rear	231	280	L4	19.5
	6	Ford	E150 CLUB WAGON	Large Van	Rear	231	280	L4	19.5
	7	Ford	F150	Large Pickup	Rear	231	280	L4	19.5
	8	Ford	F150	Large Pickup	4wd	231	280	L4	19.5
	9	DC	ML350	Large SUV	4wd	232	227	L5	19.2
	10	GM	C1500 TAHOE	Large SUV	Rear	285	325	L4	18.7
	11	Ford	F150	Large Pickup	4wd	300	330	L4	18.7
	12	GM	K1500 SILVERADO	Large Pickup	4wd	285	325	L4	18.6
6000	1	GM	C1500 SUBURBAN	Large SUV	Rear	285	325	L4	19.9
	2	GM	G1500-2500 CHEVY VAN	Large Van	Rear	285	325	L4	19.9
	3	GM	C1500 AVALANCHE	Large Pickup	Rear	285	325	L4	19.9
	4	GM	K1500 TAHOE	Large SUV	4wd	270	325	L4	19.0
	5	GM	G1500-2500 CHEVY VAN	Large Van	Rear	200	262	L4	18.8
	6	Ford	F150 PICKUP	Large Pickup	4wd	300	330	L4	18.5
	7	GM	K1500 TAHOE	Large SUV	4wd	285	325	L4	18.3
	8	GM	H1500-2500 CHEVY VAN	Large Van	4wd	285	325	L4	18.3
	9	GM	K1500 AVALANCHE	Large Pickup	4wd	285	325	L4	18.3
	10	GM	K1500 TAHOE	Large SUV	4wd	285	325	L4	18.2
	11	GM	K1500 AVALANCHE	Large Pickup	4wd	285	325	L4	18.2
	12	GM	C1500 SUBURBAN	Large SUV	Rear	285	325	L4	18.1

# Appendix N

Table N-7

## Characteristics of 1975 TO 2004 PASSENGER CARS

USING EACH YEAR'S SIZE CLASS MIX							USING 1981 SIZE CLASS MIX					
Year	0-60 Time	Vol	Weight	CID	HP	55/45 Lab. MPG	0-60 Time	Vol	Weight	CID	HP	55/45 Lab. MPG
1975	14.2		4059	289	136	15.8	14.1		4012	286	135	15.8
1976	14.4		4060	287	134	17.4	14.3		3926	274	130	17.9
1977	13.9	110	3947	280	134	18.3	14.0	106	3804	263	128	19.0
1978	13.7	109	3588	252	125	19.8	13.8	105	3454	236	119	20.5
1979	13.7	109	3476	238	120	20.1	13.8	106	3387	226	115	20.6
1980	14.1	104	3084	186	101	23.2	14.1	106	3128	191	103	22.9
1981	14.1	106	3043	178	99	24.9	14.1	106	3043	178	99	24.9
1982	14.2	106	3027	172	99	25.9	14.2	106	3043	175	100	25.7
1983	13.9	109	3101	181	104	25.8	13.9	107	3067	179	103	26.0
1984	13.7	108	3097	179	106	26.2	13.6	107	3100	180	108	26.0
1985	13.2	108	3091	177	111	26.9	13.3	107	3065	175	110	27.1
1986	13.2	107	3041	167	111	27.9	13.2	107	3048	170	112	27.7
1987	13.0	107	3030	162	112	28.1	13.0	107	3053	166	115	27.9
1988	12.8	107	3047	160	116	28.6	12.8	107	3057	162	118	28.5
1989	12.4	108	3099	163	121	28.1	12.4	107	3098	164	122	28.1
1990	12.1	107	3176	163	129	27.8	12.1	107	3186	163	129	27.8
1991	11.8	107	3153	163	132	28.0	11.8	108	3182	166	134	27.9
1992	11.5	108	3240	170	141	27.6	11.6	108	3230	167	139	27.8
1993	11.6	108	3207	166	138	28.2	11.6	108	3210	166	139	28.3
1994	11.4	108	3250	168	143	28.1	11.4	108	3263	169	145	28.0
1995	10.9	109	3262	167	152	28.3	10.9	107	3283	170	154	28.2
1996	10.8	109	3281	165	154	28.3	10.8	107	3272	167	154	28.5
1997	10.7	109	3274	164	156	28.4	10.8	108	3237	162	156	28.5
1998	10.6	109	3306	164	159	28.5	10.6	108	3263	165	160	28.5
1999	10.5	109	3365	166	164	28.1	10.5	108	3282	164	162	28.3
2000	10.3	104	3370	165	168	28.1	10.3	104	3299	164	168	28.2
2001	10.3	109	3381	165	169	28.4	10.1	106	3389	174	177	27.6
2002	10.1	110	3392	166	173	28.6	9.8	107	3406	178	185	27.7
2003	9.9	109	3435	172	179	28.8	9.7	106	3446	180	187	27.8
2004	9.8	110	3466	171	184	28.6	9.8	108	3511	173	188	27.9

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-8

## Characteristics of 1975 TO 2004 TRUCKS

USING EACH YEAR'S SIZE CLASS MIX						USING 1981 SIZE CLASS MIX				
Year	0-60 Time	Weight	CID	HP	55/45 Lab. MPG	0-60 Time	Weight	CID	HP	55/45 Lab. MPG
1975	13.6	4072	311	142	13.7	13.8	3879	281	134	14.5
1976	13.8	4155	319	141	14.4	14.1	3919	283	131	15.5
1977	13.3	4135	318	147	15.6	13.6	3931	287	138	16.7
1978	13.3	4149	314	146	15.2	13.7	3939	283	136	16.4
1979	14.2	4239	297	138	14.7	14.3	4073	277	132	15.4
1980	14.4	3848	247	121	18.4	14.4	3939	258	124	18.1
1981	14.4	3841	252	121	19.7	14.4	3841	252	121	19.7
1982	14.1	3766	243	122	20.0	14.1	3872	256	126	19.4
1983	14.4	3732	228	118	20.6	14.2	3925	255	127	19.5
1984	14.6	3770	223	118	20.3	14.3	3934	251	126	19.3
1985	14.1	3787	223	124	20.5	13.7	3941	252	133	19.5
1986	13.9	3732	211	123	21.4	13.7	3951	247	133	20.0
1987	13.3	3710	210	131	21.6	13.1	4009	255	145	19.7
1988	12.9	3838	227	141	21.2	12.7	4071	261	152	19.8
1989	12.8	3919	234	146	20.9	12.6	4110	264	156	19.6
1990	12.6	4003	237	151	20.7	12.4	4147	264	160	19.7
1991	12.5	3946	228	150	21.3	12.4	4143	261	160	19.9
1992	12.5	4055	234	155	20.8	12.6	4209	260	159	19.9
1993	12.1	4073	235	162	21.0	12.2	4187	255	164	20.3
1994	12.0	4130	240	166	20.8	12.0	4254	263	170	20.0
1995	12.0	4184	244	168	20.5	12.0	4290	264	171	19.7
1996	11.5	4224	243	179	20.8	11.4	4315	262	186	20.0
1997	11.4	4344	248	187	20.6	11.2	4353	254	193	20.5
1998	11.2	4282	242	187	20.9	10.9	4364	258	198	20.3
1999	11.0	4412	249	197	20.5	10.8	4486	263	207	20.0
2000	11.0	4375	242	197	20.8	10.7	4277	245	200	20.8
2001	10.6	4463	243	209	20.6	10.7	4360	245	204	20.7
2002	10.4	4547	244	220	20.6	10.5	4540	254	217	20.1
2003	10.4	4605	246	220	20.7	10.6	4569	253	218	20.4
2004	10.1	4712	251	235	20.9	10.3	4704	259	232	20.6

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-9

## Characteristics of 1975 TO 2004 PASSENGER CARS

USING EACH YEAR'S SIZE CLASS MIX							USING CONSTANT 1987 SIZE CLASS MIX						
Year	0-60 Time	VOL	Weight	CID	HP	55/45 Lab. MPG	0-60 Time	VOL	Weight	CID	HP	55/45 Lab. MPG	
1975	14.2		4059	289	136	15.8	14.1		4065	294	137	15.7	
1976	14.4		4060	287	134	17.4	14.5		4030	286	132	17.5	
1977	13.9	110	3947	280	134	18.3	14.1	108	3949	278	132	18.3	
1978	13.7	109	3588	252	125	19.8	13.9	107	3540	243	121	20.0	
1979	13.7	109	3476	238	120	20.1	13.8	107	3504	240	119	19.8	
1980	14.1	104	3084	186	101	23.2	14.0	107	3198	198	106	22.2	
1981	14.1	106	3043	178	99	24.9	14.0	107	3029	174	100	24.9	
1982	14.2	106	3027	172	99	25.9	14.2	107	3011	167	98	26.1	
1983	13.9	109	3101	181	104	25.8	14.0	107	3045	173	102	26.2	
1984	13.7	108	3097	179	106	26.2	13.8	107	3055	173	104	26.6	
1985	13.2	108	3091	177	111	26.9	13.3	107	3033	169	109	27.4	
1986	13.2	107	3041	167	111	27.9	13.2	107	3024	165	110	28.0	
1987	13.0	107	3030	162	112	28.1	13.0	107	3030	162	112	28.1	
1988	12.8	107	3047	160	116	28.6	12.8	107	3050	160	116	28.5	
1989	12.4	108	3099	163	121	28.1	12.5	107	3074	160	120	28.3	
1990	12.1	107	3176	163	129	27.8	12.1	107	3161	161	128	27.9	
1991	11.8	107	3153	163	132	28.0	11.9	108	3164	162	132	27.9	
1992	11.5	108	3240	170	141	27.6	11.6	108	3212	166	139	27.7	
1993	11.6	108	3207	166	138	28.2	11.6	108	3179	164	137	28.4	
1994	11.4	108	3250	168	143	28.1	11.5	108	3225	165	142	28.2	
1995	10.9	109	3262	167	152	28.3	10.9	107	3228	164	151	28.6	
1996	10.8	109	3281	165	154	28.3	10.8	107	3229	162	152	28.7	
1997	10.7	109	3274	164	156	28.4	10.8	107	3191	159	152	28.8	
1998	10.6	109	3306	164	159	28.5	10.6	107	3211	160	156	28.8	
1999	10.5	109	3365	166	164	28.1	10.6	107	3260	161	159	28.6	
2000	10.3	104	3370	165	168	28.1	10.5	104	3252	158	161	28.7	
2001	10.3	109	3381	165	169	28.4	10.3	106	3300	163	167	28.6	
2002	10.1	110	3392	166	173	28.6	10.1	106	3315	165	172	28.7	
2003	9.9	109	3435	172	179	28.8	9.9	106	3363	169	178	28.7	
2004	9.8	110	3466	171	184	28.6	9.9	107	3415	166	180	28.7	

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-10

## Characteristics of 1975 TO 2004 LIGHT DUTY TRUCKS

USING EACH YEAR'S SIZE CLASS MIX						USING 1987 SIZE CLASS MIX					
Year	0-60 Time	Weight	CID	HP	55/45 Lab. MPG	0-60 Time	Weight	CID	HP	55/45 Lab. MPG	
1975	13.6	4072	311	142	13.7	15.0	3727	242	118	15.5	
1976	13.8	4155	319	141	14.4	15.3	3755	245	116	16.5	
1977	13.3	4135	318	147	15.6	14.7	3761	251	121	18.1	
1978	13.3	4149	314	146	15.2	14.6	3766	251	122	17.6	
1979	14.2	4239	297	138	14.7	15.0	3871	247	119	16.4	
1980	14.4	3848	247	121	18.4	14.9	3761	232	115	18.7	
1981	14.4	3841	252	121	19.7	14.8	3719	227	114	20.0	
1982	14.1	3766	243	122	20.0	14.3	3729	233	120	20.0	
1983	14.4	3732	228	118	20.6	14.6	3732	224	117	20.6	
1984	14.6	3770	223	118	20.3	14.7	3698	212	115	20.9	
1985	14.1	3787	223	124	20.5	14.2	3673	208	119	21.3	
1986	13.9	3732	211	123	21.4	14.0	3677	203	121	21.8	
1987	13.3	3710	210	131	21.6	13.3	3710	210	131	21.6	
1988	12.9	3838	227	141	21.2	13.0	3754	215	137	21.7	
1989	12.8	3919	234	146	20.9	12.9	3811	220	140	21.5	
1990	12.6	4003	237	151	20.7	12.7	3849	219	144	21.4	
1991	12.5	3946	228	150	21.3	12.7	3853	218	144	21.7	
1992	12.5	4055	234	155	20.8	12.6	3901	220	148	21.5	
1993	12.1	4073	235	162	21.0	12.2	3882	219	152	21.8	
1994	12.0	4130	240	166	20.8	12.1	3947	221	157	21.7	
1995	12.0	4184	244	168	20.5	12.1	3955	222	157	21.7	
1996	11.5	4224	243	179	20.8	11.8	3984	218	165	22.1	
1997	11.4	4344	248	187	20.6	11.7	3946	218	169	22.0	
1998	11.2	4282	242	187	20.9	11.4	3935	218	173	22.1	
1999	11.0	4412	249	197	20.5	11.3	4016	222	179	21.6	
2000	11.0	4375	242	197	20.8	11.3	3942	213	176	22.1	
2001	10.6	4463	243	209	20.6	11.0	3983	213	184	22.1	
2002	10.4	4547	244	220	20.6	10.7	4107	221	195	21.6	
2003	10.3	4595	245	223	20.9	10.9	4109	217	194	22.2	
2004	10.1	4712	251	235	20.9	10.5	4192	222	205	22.3	

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-11

## Characteristics of 1975 TO 2004 PASSENGER CARS

USING EACH YEAR'S WEIGHT MIX							USING 1981 WEIGHT MIX					
Year	0-60 Time	VOL	Weight	CID	HP	55/45 LAB MPG	0-60 Time	VOL	Weight	CID	HP	55/45 LAB MPG
1975	14.2		4059	289	136	15.8	14.8		3043	169	95	20.6
1976	14.4		4060	287	134	17.4	15.0		3043	168	93	22.5
1977	13.9	110	3947	280	134	18.3	14.4	94	3043	171	98	23.3
1978	13.7	109	3588	252	125	19.8	14.1	100	3043	182	102	23.0
1979	13.7	109	3476	238	120	20.1	14.1	100	3043	182	101	22.7
1980	14.1	104	3084	186	101	23.2	14.2	103	3043	180	99	23.5
1981	14.1	106	3043	178	99	24.9	14.1	106	3043	178	99	24.9
1982	14.2	106	3027	172	99	25.9	14.2	106	3043	175	100	25.7
1983	13.9	109	3101	181	104	25.8	14.0	107	3043	175	102	26.3
1984	13.7	108	3097	179	106	26.2	13.7	106	3043	175	104	26.6
1985	13.2	108	3091	177	111	26.9	13.3	107	3043	173	109	27.4
1986	13.2	107	3041	167	111	27.9	13.3	107	3043	171	110	28.0
1987	13.0	107	3030	162	112	28.1	13.2	107	3043	167	112	28.1
1988	12.8	107	3047	160	116	28.6	12.9	107	3043	164	114	28.8
1989	12.4	108	3099	163	121	28.1	12.7	107	3043	160	116	28.9
1990	12.1	107	3176	163	129	27.8	12.4	104	3043	154	120	29.2
1991	11.8	107	3153	163	132	28.0	12.0	105	3043	155	126	29.2
1992	11.5	108	3240	170	141	27.6	11.8	105	3043	154	129	29.5
1993	11.6	108	3207	166	138	28.2	11.8	106	3043	155	128	29.7
1994	11.4	108	3250	168	143	28.1	11.9	105	3043	152	130	29.9
1995	10.9	109	3262	167	152	28.3	11.4	105	3043	150	138	30.4
1996	10.8	109	3281	165	154	28.3	11.3	106	3043	150	138	30.5
1997	10.7	109	3274	164	156	28.4	11.4	104	3043	146	139	30.5
1998	10.6	109	3306	164	159	28.5	11.2	104	3043	145	141	30.6
1999	10.5	109	3365	166	164	28.1	11.1	102	3043	143	141	30.5
2000	10.3	104	3370	165	168	28.1	10.8	101	3043	142	146	30.9
2001	10.3	109	3381	165	169	28.4	10.9	104	3043	140	144	31.4
2002	10.1	110	3392	166	173	28.6	10.6	102	3043	140	146	32.4
2003	9.9	109	3435	172	179	28.8	10.2	104	3043	143	153	33.3
2004	9.8	110	3466	171	184	28.6	10.2	105	3043	139	154	33.4

Note: This table excludes hybrid and diesel vehicles

# Appendix N

Table N-12

## Characteristics of 1975 TO 2004 TRUCKS

### USING EACH YEAR'S WEIGHT MIX

### USING 1981 WEIGHT MIX

Year	0-60 Time	Weight	CID	HP	55/45 LAB MPG	0-60 Time	Weight	CID	HP	55/45 LAB MPG
1975	13.6	4072	311	142	13.7	13.9	3841	282	132	14.6
1976	13.8	4155	319	141	14.4	14.0	3841	285	130	15.6
1977	13.3	4135	318	147	15.6	13.5	3841	287	135	17.1
1978	13.3	4149	314	146	15.2	13.5	3841	282	134	16.6
1979	14.2	4239	297	138	14.7	14.1	3841	264	127	16.4
1980	14.4	3848	247	121	18.4	14.5	3841	250	121	18.5
1981	14.4	3841	252	121	19.7	14.4	3841	252	121	19.7
1982	14.1	3766	243	122	20.0	14.1	3841	253	124	19.6
1983	14.4	3732	228	118	20.6	14.5	3841	243	121	20.0
1984	14.6	3770	223	118	20.3	14.6	3841	239	121	19.8
1985	14.1	3787	223	124	20.5	13.9	3841	237	128	20.2
1986	13.9	3732	211	123	21.4	13.9	3841	229	127	20.8
1987	13.3	3710	210	131	21.6	13.3	3841	226	136	20.9
1988	12.9	3838	227	141	21.2	12.9	3841	229	141	21.3
1989	12.8	3919	234	146	20.9	12.8	3841	227	142	21.3
1990	12.6	4003	237	151	20.7	12.8	3841	221	143	21.5
1991	12.5	3946	228	150	21.3	12.9	3841	214	142	21.8
1992	12.5	4055	234	155	20.8	12.6	3841	214	145	21.9
1993	12.1	4073	235	162	21.0	12.5	3841	212	150	22.1
1994	12.0	4130	240	166	20.8	12.3	3841	212	152	22.0
1995	12.0	4184	244	168	20.5	12.1	3841	212	153	21.9
1996	11.5	4224	243	179	20.8	11.7	3841	208	161	22.5
1997	11.4	4344	248	187	20.6	11.5	3841	205	163	22.6
1998	11.2	4282	242	187	20.9	11.4	3841	205	166	22.7
1999	11.0	4412	249	197	20.5	11.3	3841	202	168	23.1
2000	11.0	4375	242	197	20.8	11.3	3841	199	168	23.2
2001	10.6	4463	243	209	20.6	10.9	3841	198	175	23.4
2002	10.4	4547	244	220	20.6	10.3	3841	191	185	24.0
2003	10.1	4595	245	223	20.9	10.3	3841	191	186	24.7
2004	10.1	4712	251	235	20.9	10.0	3841	190	192	24.9

Note: This table excludes hybrid and diesel vehicles



# Appendix N

Table N-13

## Characteristics of 1975 TO 2004 PASSENGER CARS

USING EACH YEAR'S WEIGHT MIX							USING 1987 WEIGHT MIX					
Year	0-60 Time	VOL	Weight	CID	HP	55/45 LAB MPG	0-60 Time	VOL	Weight	CID	HP	55/45 LAB MPG
1975	14.2		4059	289	136	15.8	14.6		3030	163	96	20.6
1976	14.4		4060	287	134	17.4	14.9		3030	163	93	22.6
1977	13.9	110	3947	280	134	18.3	14.3	92	3030	165	98	23.3
1978	13.7	109	3588	252	125	19.8	14.0	99	3030	177	102	23.0
1979	13.7	109	3476	238	120	20.1	14.0	98	3030	177	101	22.7
1980	14.1	104	3084	186	101	23.2	14.1	102	3030	177	99	23.7
1981	14.1	106	3043	178	99	24.9	14.1	106	3030	174	99	25.0
1982	14.2	106	3027	172	99	25.9	14.1	105	3030	171	100	25.9
1983	13.9	109	3101	181	104	25.8	13.9	107	3030	171	102	26.5
1984	13.7	108	3097	179	106	26.2	13.7	105	3030	170	104	26.8
1985	13.2	108	3091	177	111	26.9	13.2	107	3030	168	109	27.3
1986	13.2	107	3041	167	111	27.9	13.2	107	3030	166	110	27.9
1987	13.0	107	3030	162	112	28.1	13.0	107	3030	162	112	28.1
1988	12.8	107	3047	160	116	28.6	12.8	107	3030	159	115	28.7
1989	12.4	108	3099	163	121	28.1	12.6	107	3030	155	116	28.8
1990	12.1	107	3176	163	129	27.8	12.3	104	3030	149	120	29.1
1991	11.8	107	3153	163	132	28.0	12.0	104	3030	150	124	29.1
1992	11.5	108	3240	170	141	27.6	11.8	104	3030	149	127	29.4
1993	11.6	108	3207	166	138	28.2	11.8	105	3030	150	127	29.7
1994	11.4	108	3250	168	143	28.1	11.8	104	3030	147	127	29.9
1995	10.9	109	3262	167	152	28.3	11.3	105	3030	145	136	30.5
1996	10.8	109	3281	165	154	28.3	11.2	105	3030	144	137	30.6
1997	10.7	109	3274	164	156	28.4	11.2	104	3030	142	137	30.6
1998	10.6	109	3306	164	159	28.5	11.1	104	3030	141	138	30.8
1999	10.5	109	3365	166	164	28.1	11.1	103	3030	139	138	30.7
2000	10.3	104	3370	165	168	28.1	10.9	101	3030	138	141	31.0
2001	10.3	109	3381	165	169	28.4	11.0	104	3030	136	140	31.5
2002	10.1	110	3392	166	173	28.6	10.7	104	3030	137	143	32.1
2003	9.9	109	3435	172	179	28.8	10.4	103	3030	139	148	33.1
2004	9.8	110	3466	171	184	28.6	10.4	104	3030	135	149	33.2

Note: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-14

## Characteristics of 1975 TO 2004 Trucks

USING EACH YEAR'S WEIGHT MIX						USING 1987 WEIGHT MIX				
Year	0-60 Time	Weight	CID	HP	55/45 LAB MPG	0-60 Time	Weight	CID	HP	55/45 LAB MPG
1975	13.6	4072	311	142	13.7	14.1	3710	271	128	15.2
1976	13.8	4155	319	141	14.4	14.2	3710	276	125	16.1
1977	13.3	4135	318	147	15.6	13.7	3710	281	131	17.6
1978	13.3	4149	314	146	15.2	13.8	3710	266	128	17.6
1979	14.2	4239	297	138	14.7	14.5	3710	252	119	16.7
1980	14.4	3848	247	121	18.4	14.8	3710	232	115	18.5
1981	14.4	3841	252	121	19.7	14.5	3710	240	116	20.2
1982	14.1	3766	243	122	20.0	14.3	3710	234	118	20.3
1983	14.4	3732	228	118	20.6	14.6	3710	219	116	20.9
1984	14.6	3770	223	118	20.3	14.7	3710	214	115	20.7
1985	14.1	3787	223	124	20.5	14.2	3710	213	120	21.0
1986	13.9	3732	211	123	21.4	13.9	3710	207	122	21.6
1987	13.3	3710	210	131	21.6	13.3	3710	210	131	21.6
1988	12.9	3838	227	141	21.2	12.9	3710	215	136	21.8
1989	12.8	3919	234	146	20.9	12.8	3710	216	138	21.9
1990	12.6	4003	237	151	20.7	12.6	3710	211	141	22.2
1991	12.5	3946	228	150	21.3	12.7	3710	209	140	22.4
1992	12.5	4055	234	155	20.8	12.5	3710	206	142	22.5
1993	12.1	4073	235	162	21.0	12.3	3710	205	146	22.7
1994	12.0	4130	240	166	20.8	12.2	3710	202	147	22.8
1995	12.0	4184	244	168	20.5	12.0	3710	201	149	22.7
1996	11.5	4224	243	179	20.8	11.7	3710	197	155	23.3
1997	11.4	4344	248	187	20.6	11.7	3710	191	154	23.5
1998	11.2	4282	242	187	20.9	11.6	3710	190	157	23.7
1999	11.0	4412	249	197	20.5	11.4	3710	187	160	23.8
2000	11.0	4375	242	197	20.8	11.3	3710	186	161	23.8
2001	10.6	4463	243	209	20.6	10.9	3710	183	169	24.0
2002	10.4	4547	244	220	20.6	10.5	3710	180	176	24.6
2003	10.3	4555	245	223	20.9	10.6	3710	179	175	25.1
2004	10.1	4712	251	235	20.9	10.2	3710	181	182	25.4

Note: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-15

Effect of 0 to 60 Time Mix, 0 to 60 Time & Size Mix, and  
0 to 60 Time & Weight Mix Changes on MY1975 to MY2004 Cars

<----- Vehicle Characteristics ----->										<- Laboratory 55/45 MPG ->			
From using each year's 0 to 60 Time Mix					From 1981's 0 to 60 Time Mix					From Using:			
Year	0-60 Time	Vol	Wt.	CID HP	0-60 Time	VOL	Wt.	CID HP		Each Year's Actual Mix	Just 1981 0-60 Mix	Both 1981 Size& 0-60	Both 1981 Wt & 0-60
1975	14.2		4059	289 136	14.0		4077	288 135		15.8	15.8	15.9	19.9
1976	14.4		4060	287 134	14.1		4075	287 135		17.4	17.4	18.0	21.7
1977	13.9	110	3947	280 134	14.1	108	3861	264 127		18.3	18.8	19.0	22.5
1978	13.7	109	3588	252 125	14.1	108	3519	235 116		19.8	20.4	20.4	22.7
1979	13.7	109	3476	238 120	14.2	107	3360	216 110		20.1	21.0	20.8	22.6
1980	14.1	104	3084	186 101	14.1	103	3043	180 100		23.2	23.5	23.2	23.7
1981	14.1	106	3043	178 99	14.1	106	3043	178 99		24.9	24.9	25.1	25.1
1982	14.2	106	3027	172 99	14.1	107	3056	175 100		25.9	25.7	26.0	26.0
1983	13.9	109	3101	181 104	14.2	108	3062	173 100		25.8	26.3	26.5	26.7
1984	13.7	108	3097	179 106	14.2	107	3025	166 99		26.2	27.1	27.0	27.2
1985	13.2	108	3091	177 111	14.1	106	2913	152 96		26.9	29.1	27.6	28.1
1986	13.2	107	3041	167 111	14.1	105	2860	144 94		27.9	29.8	28.7	27.7
1987	13.0	107	3030	162 112	14.1	106	2878	142 95		28.1	29.7	28.8	27.5
1988	12.8	107	3047	160 116	14.1	105	2856	135 94		28.6	30.9	30.1	29.1
1989	12.4	108	3099	163 121	14.1	106	2971	141 98		28.1	30.1	30.1	29.0
1990	12.1	107	3176	163 129	14.0	105	3063	144 101		27.8	29.6	29.8	29.3
1991	11.8	107	3153	163 132	14.1	101	2729	115 90		28.0	33.2	31.3	29.8
1992	11.5	108	3240	170 141	14.1	101	2777	116 92		27.6	32.6	30.8	30.5
1993	11.6	108	3207	166 138	14.0	103	2815	119 94		28.2	33.0	30.4	30.5
1994	11.4	108	3250	168 143	14.0	103	2751	114 92		28.1	33.8	31.6	31.4
1995	10.9	109	3262	167 152	14.1	108	2749	110 91		28.3	34.8	32.5	33.4
1996	10.8	109	3281	165 154	14.1	107	2773	110 93		28.3	33.7	33.6	34.5
1997	10.7	109	3274	164 156	14.1	101	2666	105 88		28.4	35.2	35.2	36.1
1998	10.6	109	3306	164 159	14.2	102	2648	92 87		28.5	36.2	35.5	35.3
1999	10.5	109	3365	166 164	14.1	100	2674	96 88		28.1	35.1	34.2	35.4
2000	10.3	104	3370	165 168	14.1	103	2811	102 93		28.1	34.4	34.7	35.2
2001	10.3	109	3381	165 169	14.1	109	2888	103 96		28.4	33.3	34.8	36.3
2002	10.1	110	3392	166 173	14.0	120	2974	108 99		28.6	33.4	35.5	38.2
2003	9.9	109	3435	172 179	14.1	114	3162	115 103		28.8	32.0	34.8	38.5
2004	9.8	110	3466	171 184	14.0	110	3249	123 107		28.6	30.1	36.5	37.1

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-16

Effect of 0 to 60 Time Mix, 0 to 60 Time & Size Mix,  
and 0 to 60 Time & Weight Mix Changes on MY1975 to MY2004 Trucks

<----- Vehicle Characteristics ----->									<- Laboratory 55/45 MPG ->			
From using each Year's 0 to 60 Mix					From 1981's 0 to 60 Time Mix				From Using:			
Year	0-60 Time	Wt.	CID	HP	0-60 Time	Wt.	CID	HP	Each Year's Actual Mix	Just 1981 0-60 Mix	Both 1981 Size& 0-60	Both 1981 Wt.& 0-60
1975	13.6	4072	311	142	14.3	4207	301	134	13.7	13.1	12.9	13.0
1976	13.8	4155	319	141	14.4	4313	317	136	14.4	14.0	14.1	14.6
1977	13.3	4135	318	147	14.4	4172	296	133	15.6	16.2	16.4	16.9
1978	13.3	4149	314	146	14.4	4193	294	134	15.2	15.8	16.2	17.2
1979	14.2	4239	297	138	14.3	4181	280	133	14.7	15.2	15.6	15.8
1980	14.4	3848	247	121	14.4	3866	249	122	18.4	18.3	18.4	18.6
1981	14.4	3841	252	121	14.4	3841	252	121	19.7	19.7	20.1	20.1
1982	14.1	3766	243	122	14.4	3814	247	120	20.0	19.5	19.7	19.6
1983	14.4	3732	228	118	14.3	3696	226	117	20.6	20.6	19.5	19.9
1984	14.6	3770	223	118	14.3	3776	228	120	20.3	20.3	19.8	19.9
1985	14.1	3787	223	124	14.3	3770	217	120	20.5	20.8	20.2	20.1
1986	13.9	3732	211	123	14.3	3782	210	120	21.4	21.3	20.3	21.4
1987	13.3	3710	210	131	14.3	3640	192	116	21.6	22.1	19.4	21.1
1988	12.9	3838	227	141	14.3	3756	200	120	21.2	21.9	19.6	21.4
1989	12.8	3919	234	146	14.3	3905	212	124	20.9	21.1	19.3	21.6
1990	12.6	4003	237	151	14.3	3984	213	127	20.7	21.3	19.6	22.3
1991	12.5	3946	228	150	14.3	3849	192	123	21.3	22.3	20.1	22.1
1992	12.5	4055	234	155	14.4	4129	214	131	20.8	21.1	19.7	23.1
1993	12.1	4073	235	162	14.3	4112	208	131	21.0	21.5	20.2	23.2
1994	12.0	4130	240	166	14.4	4026	191	128	20.8	22.5	20.4	23.5
1995	12.0	4184	244	168	14.3	4142	208	132	20.5	21.8	19.7	23.6
1996	11.5	4224	243	179	14.2	4246	213	136	20.8	21.1	21.8	24.4
1997	11.4	4344	248	187	14.3	3931	166	127	20.6	23.3	24.5	24.6
1998	11.2	4282	242	187	14.3	3909	158	125	20.9	24.1	23.9	25.4
1999	11.0	4412	249	197	14.3	4091	164	130	20.5	23.3	21.9	25.3
2000	11.0	4375	242	197	14.4	4495	192	141	20.8	21.4	22.6	25.4
2001	10.6	4463	243	209	14.2	3987	151	129	20.6	22.8	27.1	24.9
2002	10.4	4547	244	220	14.1	4144	161	136	20.6	21.9	23.6	25.2
2003	10.3	4595	245	223	14.2	4075	155	133	20.9	23.7	23.3	25.8
2004	10.1	4712	251	235	14.2	4482	188	148	20.9	23.4	23.5	27.2

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-17

Effect of 0 to 60 Time Mix, 0 to 60 Time & Size Mix, and  
0 to 60 Time & Weight Mix Changes on MY1975 to MY2004 Cars

<----- Vehicle Characteristics ----->											< Laboratory 55/45 MPG >			
From using each year's 0 to 60 Time Mix						From 1987's 0 to 60 Time Mix					From Using:			
Year	0-60 Time	Vol	Wt.	CID	HP	0-60 Time	VOL	Wt.	CID	HP	Each Year's Actual Mix	Just 1987 0-60 Mix	Both 1987 Size& 0-60	Both 1987 Wt.& 0-60
1975	14.2		4059	289	136	13.0		4182	315	154	15.8	15.0	15.0	18.2
1976	14.4		4060	287	134	13.1		4172	315	153	17.4	16.6	16.5	20.3
1977	13.9	110	3947	280	134	13.1	110	3997	299	146	18.3	17.6	17.2	21.5
1978	13.7	109	3588	252	125	13.1	109	3661	271	135	19.8	19.2	18.8	21.9
1979	13.7	109	3476	238	120	13.1	109	3578	261	131	20.1	19.4	18.6	21.7
1980	14.1	104	3084	186	101	13.1	104	3217	214	117	23.2	21.8	21.7	22.7
1981	14.1	106	3043	178	99	13.1	98	3043	182	111	24.9	23.9	23.9	23.9
1982	14.2	106	3027	172	99	13.1	101	3116	187	114	25.9	24.2	24.8	25.1
1983	13.9	109	3101	181	104	13.1	105	3173	196	116	25.8	24.5	25.1	25.7
1984	13.7	108	3097	179	106	13.1	104	3090	183	113	26.2	25.6	26.1	26.0
1985	13.2	108	3091	177	111	13.1	107	3092	178	114	26.9	26.7	26.9	27.3
1986	13.2	107	3041	167	111	13.1	106	3035	168	112	27.9	27.8	27.8	27.9
1987	13.0	107	3030	162	112	13.0	107	3030	162	112	28.1	28.1	28.1	28.1
1988	12.8	107	3047	160	116	13.1	107	3004	155	111	28.6	29.1	28.9	28.8
1989	12.4	108	3099	163	121	13.1	107	3046	154	112	28.1	28.9	28.4	28.9
1990	12.1	107	3176	163	129	13.0	105	3097	152	115	27.8	28.9	28.5	29.1
1991	11.8	107	3153	163	132	13.1	104	2960	139	110	28.0	30.3	28.8	29.4
1992	11.5	108	3240	170	141	13.1	104	2969	137	110	27.6	30.6	29.2	29.8
1993	11.6	108	3207	166	138	13.1	105	2987	139	111	28.2	31.0	29.6	30.0
1994	11.4	108	3250	168	143	13.0	105	2960	133	110	28.1	31.3	29.5	30.9
1995	10.9	109	3262	167	152	13.1	106	2896	124	107	28.3	33.0	30.6	31.6
1996	10.8	109	3281	165	154	13.0	106	2964	124	110	28.3	31.8	30.8	31.5
1997	10.7	109	3274	164	156	13.1	104	2917	125	109	28.4	32.4	31.0	31.7
1998	10.6	109	3306	164	159	13.1	103	2815	110	105	28.5	33.9	30.3	31.9
1999	10.5	109	3365	166	164	13.0	101	2861	114	108	28.1	32.8	29.9	31.5
2000	10.3	104	3370	165	168	13.0	101	2971	119	111	28.1	32.5	30.6	31.8
2001	10.3	109	3381	165	169	13.0	106	2990	116	111	28.4	32.6	30.7	32.1
2002	10.1	110	3392	166	173	13.0	109	2969	112	111	28.6	33.1	31.6	33.3
2003	9.9	109	3435	172	179	13.1	102	3098	123	114	28.8	31.6	31.7	34.1
2004	9.8	110	3466	171	184	13.1	104	3214	122	118	28.6	31.3	33.8	34.5

NOTE: This table excludes hybrid and diesel vehicles.

# Appendix N

Table N-18

Effect of 0 to 60 Time Mix, 0 to 60 Time & Size Mix, and  
0 to 60 Time & Weight Mix Changes on MY1975 to MY2004 Trucks

<----- Vehicle Characteristics -----> <- Laboratory 55/45 MPG ->												
From using each year's 0 to 60 Time Mix					From 1987's 0 to 60 Time Mix				From Using:			
Year	0-60 Time	Wt.	CID	HP	0-60 Time	Wt.	CID	HP	Each Year's Actual Mix	Just 1987 0-60 Mix	Both 1987 Size& 0-60	Both 1987 Wt.& 0-60
1975	13.6	4072	311	142	13.3	4162	320	146	13.7	13.0	11.7	12.4
1976	13.8	4155	319	141	13.3	4165	325	146	14.4	14.0	13.0	14.9
1977	13.3	4135	318	147	13.3	4163	320	147	15.6	15.5	14.8	16.4
1978	13.3	4149	314	146	13.4	4140	313	145	15.2	15.3	14.6	16.5
1979	14.2	4239	297	138	13.3	4185	306	147	14.7	14.6	13.8	14.9
1980	14.4	3848	247	121	13.4	3970	281	138	18.4	17.0	17.2	17.6
1981	14.4	3841	252	121	13.4	3753	264	130	19.7	18.9	19.2	19.1
1982	14.1	3766	243	122	13.4	3791	261	133	20.0	19.7	19.9	20.3
1983	14.4	3732	228	118	13.3	3792	252	134	20.6	20.1	20.3	20.7
1984	14.6	3770	223	118	13.4	3922	253	139	20.3	18.4	18.9	19.4
1985	14.1	3787	223	124	13.4	3870	244	137	20.5	19.5	21.1	20.6
1986	13.9	3732	211	123	13.4	3685	212	128	21.4	21.4	22.2	21.0
1987	13.3	3710	210	131	13.3	3710	210	131	21.6	21.6	21.6	21.6
1988	12.9	3838	227	141	13.3	3822	220	136	21.2	21.3	21.6	21.7
1989	12.8	3919	234	146	13.3	3963	231	140	20.9	20.7	21.0	21.8
1990	12.6	4003	237	151	13.3	3999	229	142	20.7	20.9	21.1	22.0
1991	12.5	3946	228	150	13.3	3866	212	138	21.3	21.8	21.3	22.1
1992	12.5	4055	234	155	13.3	4080	226	144	20.8	20.9	21.0	22.9
1993	12.1	4073	235	162	13.3	4070	219	144	21.0	21.4	21.6	23.2
1994	12.0	4130	240	166	13.3	4055	211	144	20.8	21.9	21.7	23.1
1995	12.0	4184	244	168	13.2	4163	223	148	20.5	21.1	21.2	23.2
1996	11.5	4224	243	179	13.2	4234	219	151	20.8	21.2	22.7	23.8
1997	11.4	4344	248	187	13.2	4034	188	145	20.6	22.5	23.1	23.8
1998	11.2	4282	242	187	13.3	4055	184	145	20.9	22.9	22.9	23.9
1999	11.0	4412	249	197	13.3	4242	192	152	20.5	22.1	22.4	24.0
2000	11.0	4375	242	197	13.3	4458	203	157	20.8	21.3	23.0	24.4
2001	10.6	4463	243	209	13.2	4110	171	148	20.6	22.3	24.4	24.6
2002	10.4	4547	244	220	13.1	4199	175	153	20.6	21.9	23.0	24.5
2003	10.3	4595	245	223	13.2	4267	179	155	20.9	22.5	23.1	25.5
2004	10.1	4712	251	235	13.2	4460	192	162	20.9	21.9	23.1	26.2

NOTE: This table excludes hybrid and diesel vehicles.